IN SEARCH OF SCIENTIFIC AND ARTISTIC LANDSCAPE

Düsseldorf Landscape Painting and Reflections of the Natural Sciences as Seen in the Artworks of Finnish, Norwegian and German Artists

Anne-Maria Pennonen

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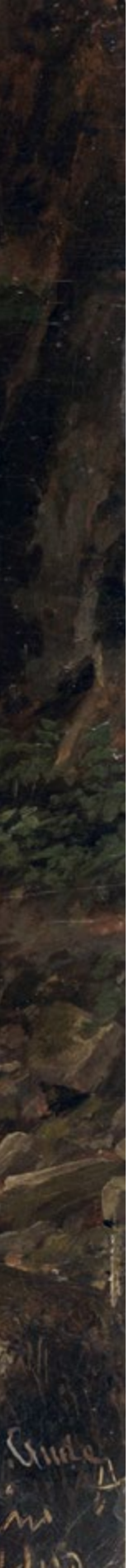

HANS GUDE
Forest Interior, 1842
oil on paper fixed on fiberboard
24.5 x 25 cm
The National Museum of Art,
Architecture and Design, Oslo
Photo: The National Museum of Art,
Architecture and Design / Dag Andre Ivarsøy

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in Auditorium PIII, on the 21st of February 2020 at 12 o'clock.

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PART II: FROM DÜSSELDORF TO THE WORLD

ABSTRACT

This study examines the relationship between landscape painting in Düsseldorf and the natural sciences in the nineteenth century. The natural sciences here comprise meteorology, geology, geography and botany. The point of view provided by these fields offers an approach to the subject that has not been considered in Finnish art-historical discourse to date. The main focus is on the artworks of Finnish artists Werner Holmberg and Fanny Churberg, as well as those by Victoria Åberg, Magnus and Ferdinand von Wright, with essential comparison material provided by studying works by German artists Johann Wilhelm Schirmer and Carl Friedrich Lessing, and by Norwegian artists Hans Gude and August Cappelen.

The primary material consists of sketches, studies and finished works of art, and I reflect on the developments of the natural sciences in Germany, Norway and Finland in the nineteenth century and how these affected the works of art, using the history of ideas and discourse analysis. As such, I approach the topic from a thematic perspective and aim to connect new concepts and ideas of natural sciences with individual works of art.

The main temporal scope of this study falls between the years 1853 and 1880. However, this time period should not be understood too strictly, because it is not possible to talk about the relationship between landscape painting and natural sciences within these decades alone. Already during the first decades of the nineteenth century, artists in Dresden were interested in natural sciences, as well as drawing and painting studies from nature. The same trend continued in Düsseldorf,

starting in the 1820s, where it was considered essential to observe the landscape in a 'proper fashion', and expressions such as 'the new naturalism' and 'the truth of nature' were widely used.

The Düsseldorf landscape movement shows how the development of natural sciences influenced the idea of landscape. It was not only work in the studio that was important, but also the work outdoors in nature, increasing the value of sketches and studies in the light of this investigation. Thanks to the activities of Johann Wilhelm Schirmer and Carl Friedrich Lessing in the field of open-air painting, the notion of naturalism gained the dimension it has been granted in this investigation. It was their example that encouraged younger artists to go out into nature in pursuit of depicting different landscape phenomena.

When researching open-air painting, these artists' travels made also gained more importance. The idea of discovery in connection with travelling led me to follow in the footsteps of Alexander von Humboldt. His work as a naturalist, making one of his voyages of discovery to South and Central America, helped me to connect landscape painting with the development of different fields of natural sciences, starting at the end of the eighteenth century and expanding all the way through the following century. However, during the first half of the nineteenth century, natural sciences had not yet been separated into the distinct disciplines that we know them as today. Moreover, several artists worked closely with scientists, illustrating their research. Humboldt was a representative of Romantic science, and in his work he regarded landscape painting as an essential way of studying nature. He also co-operated with several artists. The artistic process of composing a landscape, in effect, recalls the work of a naturalist, as described by Humboldt. Here it was essential to investigate different elements separately first, by drawing and painting sketches and studies from nature, after which work continued in the studio. Likewise, Humboldt reverted to landscape aesthetics in his writings. In the case of Finnish landscapes, many artists were guided by the work and writings of Zacharias Topelius when they encountered certain elements and features. Being one of the leading cultural figures in Finland at the time, Topelius worked as an author, journalist, Secretary of the Finnish Art Society and as a teacher lecturing on geography at the University of Helsinki.

PREFACE AND ACKNOWLEDGEMENTS

Düsseldorf, with its famous Art Academy, played a significant role in the development of Finnish landscape painting in the 19th century. I visited the city for the first time on my summer holiday in 2007. Not long before that I had been accepted as a postgraduate student at the University of Helsinki, and the topic of my ensuing doctoral thesis would be Düsseldorf landscape painting, although I did not know exactly from what point of view. In 2008, I started to work on my thesis full-time, and the Summer School arranged by the Finnish Doctoral Programme in Art History in August that year guided me on the right path, but I was still struggling with the topic. During the whole research project, the valuable support, understanding and encouragement I have received from my supervisor Professor Emerita Riitta Konttinen has helped me to continue on this path. Therefore I extend my warmest thanks to her. I am also grateful to my other supervisor Professor Ville Lukkarinen for his insightful and useful comments.

In 2009, I had another opportunity to travel to Düsseldorf. On that trip I visited the Kunstakademie and several museums and walked around the city, feeling the atmosphere, seeing places where artists had lived and worked. I also found an interesting catalogue for an exhibition, Wolkenbilder: Von John Constable bis Gerhard Richter, that had been arranged at the Aargauer Kunsthaus in Aarau in 2005. It had focused on clouds and celestial phenomena in the arts. One of the articles in the catalogue focused on meteorology in the 19th century. While I was holding the catalogue in my hands, I realised that I had found my route into Düsseldorf landscape painting: the development of the natural sciences in the 19th century. In fact, it was the distinctive elements in these artworks, such as clouds, rocks and stones, topographic forms and different species of trees that led me to look into the history of the natural sciences. Soon after my visit, my thesis found its focus on the development of meteorology, geography, geology and botany.

The next important step in my research came when I 'discovered' Alexander von Humboldt. His name has often popped up in studies by German art historians and scholars on landscape painting in the 19th century, and this year many institutions in Germany are celebrating the 250th anniversary of his birth. In Finland, however, his fame has faded into obscurity. Humboldt's close connection with the arts proved to be of the utmost importance. He also led me into an exciting expedition to different parts of the world – partly with the help of books, partly in real life.

My research has taken me to different cities and countries during these years, but mainly to Germany. Along with Düsseldorf, I have visited Karlsruhe, Munich, Dresden, Weimar and Berlin. I have climbed mountains, but also travelled along the Rhine and the Elbe. My warmest thanks are due to Marcell Perse, who not only provided me with essential research material and information, but also showed me around in the Siebengebirge, Ahrtal, the Eifel and Jülich, as well as giving me shelter at his home in Jülich. I also want to extend my thanks to his welcoming family. Moreover, I wish to thank the kind staff at the Museum Kunstpalast in Düsseldorf, especially Bettina Baumgärtel and Sabine Schroyen, who have shared their knowledge with me. I am also grateful for the warm reception I was given at the Kunstakademie in Düsseldorf and at the Kunsthalle in Karlsruhe.

On my travels I have also followed in artists' footsteps to Sweden, Norway and Denmark. In Sweden, I wish to thank the kind staff at the Nationalmuseum, the National Library of Sweden and the Royal Swedish Academy of Sciences in Stockholm, for the warm reception I received, as well as Kristoffer Arvidsson at Gothenburg Art Museum and Mette Raaum at Malmö Art Museum. In Norway, I wish to thank the staff at the Royal Library, but especially Majbritt Guleng, Nils Messel, Frode Haverkamp and Vibeke Wallaan-Hansen at the Nationalgallery in Oslo, as well as Knut Ormhaug at the KODE Art Museums in Bergen. In Denmark, I was kindly introduced to the Hirschprung Collection in Copenhagen by Gertrud Oelsner.

At this point I am also truly grateful for my pre-examiners Professor Bettina Gockel, University of Zurich, and Professor Maunu Häyrynen, University of Turku, who took their time to read through my text and comment on it. Their insightful observations and complimentary remarks gave me the confidence to complete my work. In addition, I wish to thank Professor Charlotte Klonk for showing interest in my research.

During this long project, my fellow graduate students, colleagues and friends have contributed to this study by giving advice, listening to my complaints, or simply by encouraging me. I feel especially indebted to Elina Räsänen, Hanne Selkokari, Anna-Maria von Bonsdorff, Maija Koskinen, Marja Lahelma, Julia Donner, Hanna-Reetta Schreck, Anna Ripatti, Virve Heininen, Anna-Maria Wiljanen, Susanna Pettersson, and Marja Sakari. Moreover, I wish to thank Professor Kirsi Saarikangas and Maija Urponen for their support, too. I would also like to thank Risto Ruohonen and Riitta Ojanperä for publishing my dissertation, Hanna-Leena Paloposki for helping me with all the practical matters related to it, as well as Jaana Jäntti and Arto Tenkanen for the layout. In addition, the pleasant staff at the Ateneum Art Museum deserve special thanks. I also wish to thank Gillian Crabbe for her language revision of my text. I am fully responsible for all the remaining errors.

Working on the dissertation has required full-time research and I am truly grateful for all the grants I have received from the Kone Foundation, the Merita Art Foundation, the Ella and Georg Ehrnroot Foundation, as well as the University of Helsinki. All my travels would not have been possible without the travel grants awarded by the Emil Öhman Foundation, the Kone Foundation, the Finnish-Swedish Cultural Foundation and the Finnish-Norwegian Cultural Foundation.

My trips to Germany would not have been possible without help from my friends there. I am grateful to Hannie and the late Rainer Dolphyn, who always kindly welcomed me to their home in Berlin. I also wish to thank my friends and fellow students from Tampere University, especially Ritva Pennanen, who gave me shelter on several trips in Schwetzingen, as well as Kaija Kivelä in Munich. Moreover, I must also express my gratitude to all close and dear friends who have stood by me for all these years and helped me to put things into perspective.

Now, when looking back, it feels more than natural that I chose landscape painting as my topic. I have always felt at home in nature, and time spent in the forest is becoming more and more important to me. In this respect, I am very thankful for my mother and my late father, who 'forced' my brother and I to follow them on their outings to forests and to the seaside. Their love, support and belief in me has guided me all my life. I also recall with gratitude my late grandmother Sofia, the heroine of my life. She always valued education, she never gave up, and I know that she would be proud of me today. I also want to thank my brother and his family, as well as my uncle and his family. You have all given me shelter and escape whenever I have needed it. It has been a long and winding road, but what an exciting trip!

Laajasalo, 1 December 2019

Anne-Maria Pennonen

1
INTRODUCTION

PROLOGUE: TWO VIEWS FROM KYRÖ RAPIDS

In the artwork *Kyrö Rapids* (Kyröskoski)[1], by Werner Holmberg (1830–60), painted in Düsseldorf in 1854, the viewer is confronted with a scene in which cascading waters run between rugged rocks, forming quiet waters at the foot of the rapids in the foreground. The sky is mostly covered with dark thunder clouds presaging rain, but we can also see a patch of blue sky just above the top of the rapids in the middle ground. There on the left, the silhouettes of trees are clearly visible, but on the right the forest forms mainly a dark green line, separating the sky from the rocks. In contrast to the dark sky and the rugged rocks, there are some areas in the landscape which are illuminated by sunlight: a sawmill on the left, as well as the white foam of the rapids. As a consequence, our gaze is focused on these spots. The subject-matter of the painting, however, is not restricted to the natural phenomena of the sky with dark clouds, the foaming waters of the rapids, and the rugged scenery around the waterfall; there are some tiny human figures in the landscape, too. On the left, we can see a man sitting on a horse-drawn cart, which is coming down the road, bringing logs to the sawmill. To the right of the sawmill, two more men are taking cut timber from it. Close to them, there are another two men loading timber onto a small boat, which will obviously carry them further along the river.

1 No. A I 90, FNG.

1 WERNER HOLMBERG
Kyrö Rapids, 1854
oil on canvas
110 x 102 cm
Finnish National Gallery / Ateneum Art Museum
Photo: Finnish National Gallery / Jouko Könönen

2 WERNER HOLMBERG
Kyrö Rapids, 1857
wash tint drawing
49 x 71 cm
Finnish National Gallery / Ateneum Art Museum
Photo: Finnish National Gallery / Hannu Aaltonen

As such, *Kyrö Rapids* not only depicts a specific artistic motif, but also a popular tourist resort in the western part of Finland in the nineteenth century. Due to the popularity of this place, Holmberg was not the first artist to paint the view; there are several artworks depicting the cascading waters of Kyrö River from the same vantage point.[2] Holmberg painted this picture while in Düsseldorf, and instead of having visited the place himself prior to the painting process, he used a drawing made by Pehr Adolf Kruskopf (1805–52) in the 1840s as a topographical starting point.[3] In contrast to Holmberg's version, there are no people in the earlier works depicting the rapids; the buildings are the only indication of human presence in the landscape.

Holmberg's encounter with the Kyrö Rapids does not end here, as he offers us another view of the same location, this time the result of his visit to the place *in situ* in the summer of 1857, while travelling around the southern part of Finland. It is a washed tint drawing, dated 26 June 1857, giving a quite different view of the place.[4] Traditionally, one stands at the foot of the rapids, looking up, as indicated in Holmberg's oil painting. Also the directions right and left are given from this point of view. In this later version, however, Holmberg has depicted the rapids from the opposite viewpoint, looking down the rapids from the left bank. Here we are provided with a wider view of the surroundings. In the upper right-hand corner, the landscape opens up to the horizon, revealing more signs of human presence as we detect a tiny church among the undulating forest scenery. Actually, it is not only the viewpoint that is different from the earlier version; the whole atmosphere of this later version makes a different impression. Indeed, it is more serene and not so threatening. The contours of the rocks are softer, and the sky is clear. Even though we cannot see the sun, we can assume that it is a sunny day, as Holmberg has marked the shadows cast by the buildings on both sides of the rapids, as well as by the uneven surface of the rocks. Here we can also clearly detect the trees in the forest, which actually consists mostly of spruce.

THE FOCUS AND TEMPORAL SCOPE OF THE STUDY

These two artworks by Holmberg provide a good starting point for this thesis, although one of them is a finished picture painted in the studio, and the other one a washed tint drawing made outdoors. Generally speaking,

2 For example, Anders Fredrik Skjöldebrand (1757–1834) made an aquatint of the rapids for the book *Voyage picturesque au Cap Nord* (1801–02), Carl von Kügelgen (1772–1831) a lithograph for *Vues pittoresques de la Finlande* (1823–24), Magnus von Wright (1805–68) a pencil drawing at the end of the 1840s, and Johan Knutson (1816–99) depicted it in oil 1848–49. For this, see Reitala 1986, 46–47; see also Hovinheimo 2011, 74–79.

3 For the emergence of Holmberg's *Kyrö Rapids*, see Aspelin 1890, 54–58; Reitala 1986, 45–49.

4 Reitala 1986, 82–83.

3 MAGNUS VON WRIGHT
Kyrö Rapids, 1846/1847
pencil on paper
14.5 x 21 cm
Illustration for *Finland framställdt i teckningar*,
Finnish National Gallery / Ateneum Art Museum
Photo: Finnish National Gallery / Yehia Eweis

they represent the major fields of interest in landscape painting in Düsseldorf at the time: the atmospheric phenomena and clouds, geological features of the terrain, rivers and waterways, forest and trees. In addition, there is a narrative aspect to them, as they both depict the human impact on nature, here in the form of forestry and tourism. However, if we compare Holmberg's oil painting with the principal mode of composing landscapes at the time, or even just with his washed tint drawing above, we can recognise some divergence. For one thing, Holmberg composed the oil painting without visiting the place himself, and to be precise, without making sketches and studies on the spot first. It is an artwork which has been produced completely in the studio. Hence, it deviates not only from Holmberg's later œuvre, but also from the general trend of landscape painting at the time, as we shall see later. It is the washed tint drawing that unites Holmberg with the prevailing trend of landscape painting and more precisely with the outdoor sketching of the time. This investigation exam-

ines how these differences, as seen in these two artworks here, not only tell us about the changes in Holmberg's production, but also about the principal trends in Düsseldorf landscape painting, as well as the changes that took place in the relationship with and understanding of nature.

In my study, I aim to reflect on the developments of the natural sciences in relation to landscape painting. To be precise, my investigation seeks to generate new perspectives on landscape painting in Düsseldorf by connecting it with the development of natural sciences in the nineteenth century. It suggests that certain discoveries in the field of natural sciences directed artists' attention to corresponding elements in their landscapes. Therefore, this thesis intends to offer a novel approach especially to the artworks of Finnish artists who studied landscape painting in Düsseldorf in the latter half of the nineteenth century, and thus it aims to construct a relationship between their artworks and the development of natural sciences in the nineteenth century. By doing this, it focuses on the conviction that landscape painting is a historical phenomenon whose methods and practices are related to the particular historical, intellectual and social context when the artworks are created, experienced and interpreted. I would argue that there are connections between landscape painting and natural sciences in their understanding of nature. It is to be noted that this connection is not limited to these fields only, but it also involves the aesthetics of the time, because aesthetics concerned both landscape painting and natural sciences at that time. Thus, the point of view as provided by these fields in the long nineteenth century, gives a novel approach to the subject of Düsseldorf landscape painting in Finnish art-historical discourse to date. This is not to suggest that the relationship between German art – particularly Düsseldorf landscape painting – and natural sciences has not been studied in many contexts already, but rather that the relationship between the artworks of Finnish landscapists in Düsseldorf and natural sciences has not yet been discussed to this extent. We have to keep in mind, however, that these artists' approach to nature and natural sciences varied, and some of them were more intensively involved and had direct contact with scientists.

The natural sciences in this context comprise geology, geography, meteorology and botany, and accordingly the elements under closer inspection in the artworks are primarily mountains, rocks and stones, boulders, trees, clouds and atmospheric phenomena. As for botany, the focus of this study lies in the depiction of trees, because it would be too big an

endeavour to address all of the vegetation in the scope of this particular study.[5] Consequently, the primary objects of my analyses are the artworks of Finnish landscapists, who studied and worked in the city, and how their artworks can be connected to Düsseldorf landscape painting in general, but also to the above-mentioned fields of natural sciences. Furthermore, I aim to approach the artworks using perspectives from nature philosophie (*Naturphilosofie*) and the landscape aesthetics of the time as far as these constitute a clear relationship with the natural sciences. In addition, a close study and observation of nature, as well as a pure love of nature, are methods and aspects which naturally concern both artists and scientists, and which they applied in their work.

The main temporal scope of this study falls between the years 1853 and 1880, and it applies to the Finnish artists in particular. This period should not be understood too strictly, because it is not possible to talk about the relationship between landscape painting and natural sciences within these decades alone. In fact, many of the major developments in natural sciences, which were also reflected in landscape painting later in the century, took place during the first half of the nineteenth century. In the same manner, many important steps in Düsseldorf landscape painting were also taken before 1850. The starting year of the investigation is defined by Holmberg's arrival in Düsseldorf in the summer of 1853, since he was the first prominent Finnish artist to study in the city. Holmberg's career path started to form in Düsseldorf in the 1850s, and was cut short abruptly in 1860 by his untimely death. In Finland, he started a trend, which lasted for about 30 years, as many other artists followed in his footsteps, travelling to Düsseldorf in the 1860s and 1870s in order to take up art studies there. The city, with its famous art academy *die Königlich Preußische Kunstakademie zu Düsseldorf,* attracted students from all over the world, and the most popular genre of art in Holmberg's time was, in fact, landscape painting. However, Holmberg did not study at the academy, but as a private student of the Norwegian artist Hans Gude (1825–1903) for two years (1854–56). Gude plays a prominent role in this thesis, because he not only instructed Holmberg, but also several other Finnish artists. Since the 1880s form quite a different episode in Finnish art, it is not included in this study.

Apart from Holmberg's œuvre, the artworks of Fanny Churberg (1845–92) and Victoria Åberg (1824–92) have also played an essential role in this study. Moreover, Victoria Åberg's life and work have helped with

5 For the depiction of plants in the nineteenth century, see, for instance, Annika Waenerberg's *Urpflanze und Ornament. Pflanzenmorfologische Anregungen in der Kunsttheorie und Kunst von Goethe bis zum Jugendstil* (1992).

concentrating on what was essential in landscape painting in Düsseldorf when compared with the earlier tradition in Dresden primarily, but also, to a lesser degree, with other cities in the German-speaking lands. In contrast to Holmberg, Victoria Åberg offers a different point of view, as her career was not limited to working in Düsseldorf. After studying there under Gude for four years (1858–62), she moved, first to Dresden and then to Weimar.[6] Later in her career, she lived and worked in Berlin and Munich, as well as in Italy. Actually, she kept shuttling between different cities in Germany and Italy in the 1860s and 1870s, but finally ended up in Weimar, where she stayed until her death in 1892. Along with Åberg, Fanny Churberg expands the temporal scope of this study to the 1870s. She arrived in Düsseldorf for the first time in the autumn of 1867 and stayed until the following summer. Due to the war between France and Prussia (1870–71), she was not able to continue her studies before the autumn of 1871. This time, Churberg stayed in Düsseldorf until the summer of 1874, but in between times she spent the summers in Finland. She studied there under the German artist Carl Ludwig (1839–1901). Churberg's career continued until 1880, when she simply stopped painting and committed herself to the promotion of Finnish handicrafts. She died in Helsinki in the same year as Åberg died.

As for the scientific approach, the artworks and illustrations of the von Wright brothers Magnus, Wilhelm (1810–87) and Ferdinand (1822–1906), and especially the lifework of Magnus, have provided essential material for this study. Magnus von Wright spent about two months in Düsseldorf in the summer of 1857 as a private student under Gude. He had a multi-faceted career and, apart from being a landscapist, he worked as a scientific illustrator, a drawing teacher at the Drawing School of the Imperial Alexander University[7] in Helsinki, a bird taxidermist at the Finnish National Museum of Natural History and also as a cartographer.[8] In addition, he was the first artist member of the Board of the Finnish Art Society.[9] At the drawing school, Magnus von Wright instructed several future artists, Werner Holmberg being one of them. In 1858, Ferdinand von Wright also spent about two months in Dresden, studying under Siegwald Dahl (1827–1902), son of Johan Christian Clausen Dahl (1788–1857).[10] Wilhelm von Wright made his career mainly in Sweden, working as a scientific illustrator at the Royal Swedish Academy of Sciences.

This investigation, however, would not have been possible without including the developments in Düsseldorf landscape painting since the 1820s, because this was the time when the two key German figures,

6 In Dresden, Åberg studied under Alexander Michelis (1823–68) for some time. The exact time is not known.

7 The Imperial Alexander University of Finland (1809–1917). Since 1917, it has been known as The University of Helsinki.

8 Today we talk about the Finnish Museum of National History (Luomus).

9 In the Finnish Art Society, Magnus von Wright contributed to the formation of the society's art collection.

10 Ferdinand von Wright was supposed to go to Düsseldorf, but for unknown reasons he travelled to Dresden instead, and spent two months there in the summer of 1858. For von Wright's travel diary, see von Wright 2008 [1858–59].

Johann Wilhelm Schirmer (1807–63) and Carl Friedrich Lessing (1808–80), entered the art scene in the city. The contribution of Gude has to be emphasised at this stage as well, due to his work teaching many Finnish artists. In fact, it was his reputation, along with Holmberg's career, that attracted several Finnish artists to go and study landscape painting in Düsseldorf. Gude's background in Norway has also helped to connect the investigation with other Norwegian artists, starting with Johan Christian Clausen Dahl in Dresden. What happened in Dresden at the beginning of the century paved the way for the developments in Düsseldorf, as we shall see in chapter four. Landscape painting in Munich and Berlin are not covered here, since they had less meaning for the developments in Finland and Norway at this stage, even though Munich attracted several Norwegian artists in the nineteenth century, especially in the 1870s. Besides, Karlsruhe is mostly excluded, although Gude instructed several Norwegian and some Finnish students there as well. This is due to the fact that Gude's focus started to change while working in Karlsruhe; this is to say that he started to paint more and more seascapes which are not included in this study. This change of focus can be seen in his students' works in Karlsruhe, too.[11]

Additionally, finishing the temporal outline of this study in 1880 is supported by the prevailing trends and interests in natural sciences during the second half of the nineteenth century. Geology and a fascination with natural history in general had been very popular since the late eighteenth century in Europe. In the USA this trend started some decades later. However, increasing specialisation and professionalisation, starting in the 1870s, made natural sciences more difficult to understand for average people, gradually diminishing the popularity of the discipline. The invention of photography played a prominent role, too, as it started to gain more and more ground in scientific studies towards the end of the century, thanks to its precision and less subjective approach. In effect, this development contributed to a major change in landscape painting. Instead of accurate depiction, a softer and more painterly way of rendering became popular and artists started paying attention to other scientific facts instead. As a token of this, they abandoned the use of local colours and began studying, for example, the influence of clear daylight on colours. Also style, individuality and originality became more important, making landscape painting shift towards a more personal expression instead of scientific accuracy. These changes can be seen both in Europe and the USA.[12]

11 For Gude's work and students in Karlsruhe, see, for instance, Haverkamp 2016.

12 For the development in the USA, which provides an excellent baseline for this study, see Bedell 2001, 147–151.

SOURCES:
SKETCHES, STUDIES AND FINISHED PAINTINGS

Since the Renaissance, sketching in the open air has been considered essential in order to achieve a higher goal, as the sketches and studies made outdoors provided preparatory material for the finished picture, which was executed in the studio. Thus it was assumed that the artist had at least seen the view at first hand and not copied it. It was only at the turn of the eighteenth and nineteenth centuries that such sketches began gaining remarkably more attention and, during the course of the nineteenth century, also more appreciation. In comparison to the finished picture, which stood for patience and expression, they represented an ingenious inspiration. At the same time, landscape painting as a genre of art became more esteemed. Prior to this, sketches and studies had been mainly regarded as the first indications of the artist's ideas with regard to the finished picture.

If research on landscape painting concentrated only on finished artworks, a lot of essential information would be missed. Sketches and studies reveal how artists have approached the subjects of their landscapes and how they have developed their ideas. They also show vividly where artists have travelled and what kind of things have caught their attention. As a result, even a very hastily made sketch can demonstrate and complete a picture of an artist's working process. Therefore, along with finished works of art, the primary research and source material of my study consists of sketches and studies made from nature, but to complete the picture, I have studied artists' letters and journals, which often provide additional background information about their thoughts, travels and social lives.

My investigation started with the examination of Holmberg's œuvre, most of which belongs to the collections of the Finnish National Gallery. There are 742 works altogether, consisting of seven sketchbooks, separate sketches and studies, and 93 oil paintings. In addition, I have examined all of Holmberg's artworks held in other museum collections in Finland, as well as dozens of artworks from private collections. The artworks of Churberg and Åberg are more scattered in different museums and private collections. In the collections of the Finnish National Gallery, there are 42 oil paintings and 21 sketches by Churberg, and only five oil paintings, three sketches and one sketchbook by Åberg, whose works are mostly held in private collections. As for the von Wright brothers, it has not been possible

to trace all of their artworks and scientific illustrations due to the great number of them. Many of their oil paintings, numerous sketches and some sketchbooks belong to private collections in Finland. Their original scientific illustrations belong mainly to the collections of the National Library of Finland and the Royal Swedish Academy of Sciences in Stockholm. In the collections of the Finnish National Gallery there are 18 oil paintings and oil studies, 242 sketches by Magnus, and five oil paintings, and 28 sketches by Wilhelm, as well as 58 oil paintings and three sketchbooks, 13 sketches and 15 studies by Ferdinand. In addition to different museums and private collections, recent exhibitions with Holmberg, Churberg and the von Wright brothers have offered me a good opportunity to study and view their production.[13] Regarding the letters, I have not had access to all of the correspondence of the Finnish artists mentioned here. In the case of Werner Holmberg, his letters from Germany, which Eliel Aspelin-Haapkylä has used, can be found reproduced in Aspelin-Haapkylä's notebook. These letters helped me to see and understand some of Holmberg's ideas that Aspelin-Haapkylä had left unmentioned in his biography. As for Fanny Churberg, most of her letters, which Aune Lindström has used in her biography (1938), have disappeared. Similarly, I have had access only to a part of Victoria Åberg's letters from the period after her studies in Düsseldorf.[14] In the case of the von Wright brothers, I have used mainly their journals, which were edited and published in seven different volumes by Anto Leikola, Juhani Lokki and Torsten Stjernberg in 1996–2010. As there is not always evidence in writing, for example, in the form of letters or journals, I cannot clearly state or prove what artists themselves thought or intended to do. Even so, it is possible to research their artworks using contemporary perspectives. Therefore my study is primarily based on a close reading of the elements and details within the artworks in order to detect references to the natural sciences. Secondly, I aim to connect these details with the developments of the natural sciences.

Concerning the usage of the terms 'sketch' and 'study', it can be rather difficult to make a clear distinction between them, because it has varied to a great extent over time. The meanings of these concepts are not always clear and they often seem to overlap. In the case of a sketch, I talk about a drawing in pencil or in ink composed from nature, whereas a study is made in watercolour or in oil. Studies mostly refer to preparatory work and they are clearly smaller in size than the finished pictures, which

13 Fanny Churberg's exhibition at Turku Art Museum and Amos Andersson Art Museum in 2012, Werner Holmberg's exhibition at Hämeenlinna Art Museum in 2017, and The Brothers von Wright at Ateneum Art Museum in 2017–18.

14 Aspelin-Haapkylä's notebook can be found at SKS, KIA, and some of Holmberg's letters are at ÅA/HA. Copies of Churberg's letters are at the Archive of FNG, and Åberg's letters belong to a private archive. Parts of Churberg's letters were also published by Helena Westermarck in *Tre konstnärinnor* (1937). In addition, there are remarks about Churberg in Helga Söderström's letters, which are at the Archive of FNG.

have been executed in oil in the studio. As far as Düsseldorf landscapists are concerned, the concept of composition (*Komposition*) comes up in the meaning of a preparatory drawing for a finished picture. Usually these compositions have been made in charcoal. Hence, the concept not only refers to its traditional meaning of the arrangement of different elements in a picture. In order to avoid confusion, these terms will be discussed more thoroughly in connection with Düsseldorf outdoor painting[15] in chapter four. As such, sketches and studies do not just reveal different stages in an artist's working process, but they provide, together with artists' letters, a more intimate insight into the artist's ideas and fields of interest; therefore they can be regarded as illustrated travel diaries from the painting trips, too. In addition to the actual artworks, contemporary newspaper articles and literature help to reconstruct the general social context of the time in which to place the artworks.

PREVIOUS RESEARCH ON FINNISH ARTISTS AND DÜSSELDORF LANDSCAPE PAINTING

Landscape painting, as such, is a rather new phenomenon in Finland. Apart from a few examples from preceding centuries, it started to develop properly only in the course of the nineteenth century. In its early stage, landscape graphics and illustrated travelogues played an important role, as stated by Jukka Ervamaa.[16] In this development, however, Düsseldorf had great influence first on how artists' and later on how the public interest was directed towards landscape painting. Correspondingly, Finnish artists travelled to study in Düsseldorf, starting in the 1850s. It was only from the 1870s onwards that Paris and France caught most of the attention. In terms of the meaning of Düsseldorf for Finnish landscape painting, it has mostly passed into oblivion in current Finnish art-historical discourse. In the past twenty years, prior to this investigation, only a few articles and books have been written on the artists who had connections to Germany or Düsseldorf. In fact, most of the recent research concerning nineteenth-century Finnish art has been about artists and their connections with France. Besides, the meaning of open-air painting in Düsseldorf has been completely overshadowed by that of French art. During the first half of the twentieth century, Düsseldorf art was considered mostly to represent some old-fashioned approach to landscape in which major emphasis was placed on the

15 In my study I talk about 'outdoor' or 'open-air' painting instead of 'en plein air' to make a difference between the practice in Düsseldorf and the French *pleinarism*.

16 Ervamaa 1998; see also Hirn 1988 [1950].

imitation of nature and intensive studio working; thus, it formed a counterpart that was considered of lesser quality to French en plein air painting.[17]

In Finnish art-historical discourse, Düsseldorf landscape painting has been placed mostly in the domain of Romanticism.[18] The reason for this approach can be traced to the earlier dominance of formalism, according to which major attention was paid to the stylistic and compositional features of artworks. Furthermore, the concepts of the *sublime* and the *picturesque* have been applied frequently to describe the aesthetic qualities of artworks.[19] In this discourse, sketches and studies have been regarded only as by-products of artistic work, in which case finished pictures produced in the studios have caught most of the attention. In addition, the role of the *Kunstakademie* has been stressed as a major lure for artists. In this respect, this study intends to provide a new and a different approach to the subject. Regarding the individual Finnish artists in this thesis, there are a couple of biographies and articles which have helped me to form a chronological basis for my research. Usually the biographies deal with artists' lives and the emergence of their production. While concentrating on Finnish artists' lives and careers, none of these biographies, histories of art or articles dealing with different artists has discussed the scientific aspects of their art.

The first study on Düsseldorf landscape painting and its meaning in Finland was written by Eliel Aspelin (later Aspelin-Haapkylä) in his biography on Werner Holmberg in 1890. While doing his research, Aspelin travelled to Germany and Norway, where he had the chance to interview Holmberg's widow, Anna (neé Glad), and Holmberg's artist friends and colleagues Gude and Sophus Jacobsen (1833–1912).[20] Aspelin's biography on Holmberg was also the first artist biography in Finland. It was published both in Swedish and Finnish in the same year, and it contains the first list of Holmberg's oeuvre. After Aspelin, Finnish art historians did not focus on Holmberg's art for several decades, but he was included in general descriptions of Finnish art, for example, in 1912 by Johannes Öhquist and in 1927 by Ludvig Wennerwirta.[21] It was only in 1986 that Aimo Reitala started to re-write the history of Finnish landscapists in Düsseldorf in his *Werner Holmbergin taide*, which also portrays the life and art of Werner Holmberg. A great deal of Reitala's research was based on the earlier biography written by Aspelin, but Reitala corrected many mistakes he had found in Aspelin's work. Besides, Reitala connected many of Holmberg's sketches and

17 Nils Messel, a Norwegian art historian, recognised a similar trend in Norway and describes how earlier Norwegian art history has been written as if looking through French spectacles. See Messel 1994.

18 The terms Romantic and Romanticism are used here as historical terms which refer to the period consisting of the last decades of the eighteenth century and early nineteenth century.

19 This is also the case with a recent exhibition *Skräckromantikens landskap. Från Marcus Larson till Goth* (2014) at the Gothenburg Art Museum in Sweden. In the exhibition, the artworks of the Swedish artist Marcus Larson (1825–64) are linked with contemporary art and trends of Romanticism in hard rock music. Arvidsson 2014, 45–46.

20 Selkokari 2008, 95. In 1889, Aspelin travelled to Berlin to meet Gude, and from there to Düsseldorf, where he interviewed Jacobsen. There are notes concerning this trip in Aspelin's notebook, which also contains reproductions of Holmberg's letters. See also footnote 14.

21 For this, see *Suomen taiteen historia* (1912) by Öhquist and *Suomen taide esihistoriallisesta ajasta meidän päiviimme* (1927) by Wennervirta.

studies with their corresponding finished pictures, and he mentions briefly the interest in geology in Düsseldorf. When discussing the level of realism of Düsseldorf landscape painting, Reitala employed the expression 'detail realism', which has been used in Germany but not to the same extent in Finland. Reitala, nonetheless, did not discuss the background or the emergence of it. While composing his book, Reitala did not travel to Germany, but he visited Oslo.

Twenty years later, Ville Lukkarinen discussed Holmberg's art in the context of the work of contemporary artist Lauri Anttila (b. 1938), in *Hommage à Lauri Anttila* (2008). Anttila has investigated German Romanticism and its reflections on contemporary art from a scientific point of view in several contexts. In 1985–86, he made an installation, *Hommage à Holmberg*, in the form of a showcase, in which he studied the actual surroundings of Holmberg's walking trip to Finland in the summer of 1859. Following in Holmberg's footsteps, Anttila's aim with this artwork was to challenge the idea of the truthfulness of science.[22] In his article '*Werner Holmberg ja fragmentin taide*', Lukkarinen focuses on some of Holmberg's studies in watercolour, as well as finished pictures depicting Finnish landscapes. While doing this, Lukkarinen applies the concept of fragment as introduced by early German Romanticism and combines it with Holmberg's paintings, calling them collages that consist of fragments.[23] In 2015, Lukkarinen revisited the same theme in '*Werner Holmberg – "Der Wanderer"*' the chapter in his book *Piirtäjän kirja,* focusing mainly on Holmberg's sketches and studies. Just as earlier, Lukkarinen combines Holmberg's artworks with early German Romanticism and the literature related to wandering, but also compares his way of working with the tradition of landscape painting in Italy and France. This time Lukkarinen compares Holmberg's watercolour studies with vignettes and sees his art as a part of the history of wandering, but more importantly Lukkarinen regards it as an expression of time. In this context it is also noteworthy that Hämeenlinna Art Museum arranged a retrospective exhibition on Holmberg's art in 2017 and published a catalogue.[24]

Although there were several women artists working actively in Finland during the second half of the nineteenth century, their achievements were mostly neglected in comparison to their male colleagues. This was also the case with Fanny Churberg. After her death in 1892, Churberg's art fell into obscurity, but thanks to an exhibition arranged at Gösta Stenman's art gal-

22 The artistic and scientific nature of Anttila's artwork has been discussed by Hanna Johansson and Tarja Knuuttila. See Johansson & Knuuttila 2008, 40–76.

23 The Finnish art critic Timo Valjakka applied the concept of a collage to Holmberg's artworks in his review of Holmberg's retrospective exhibition at Hämeenlinna Art Museum in 1987. *Helsingin Sanomat* 9 July 1987.

24 The articles in the catalogue deal with Holmberg's painting trips in Germany and Finland, as well as with the corresponding sketches and artworks related to these trips. See Lukkarinen 2017 and Pennonen 2017a.

lery in 1919, it started to attract attention once again. Signe Tandefelt, who was an art critic and daughter of Churberg's colleague Jac. Ahrenberg, wrote an article in the exhibition catalogue that changed the attitudes towards Churberg's art. Tandefelt praised the personal character of Churberg's art and pointed out how Churberg's male colleagues underestimated her skills and did not understand her art. Tandefelt's article caught the attention of Helena Westermarck and Aune Lindström. As a consequence, Westermarck – being a former artist and after that working as an art critic – included Churberg in her book *Tre konstnärinnor* (1937). Westermarck describes Churberg's life and art using Churberg's unpublished letters to her friends as source material. In the following year, Aune Lindström published her biography on Churberg, and it covers Churberg's life and art step by step, including her art studies in Düsseldorf and travels to Paris. Both Westermarck and Lindström end up comparing Churberg with Holmberg and regard her as his equal. After this, it took several decades, and it was only in 1994 when Riitta Konttinen published her biography of Churberg reassessing Churberg's life and art. A revised edition of Konttinen's biography was published as a catalogue for an exhibition in 2012. It is partly based on Aune Lindström's book *Fanny Churberg*, but Konttinen brings up the difficulties Churberg had to face as a woman making art in nineteenth-century Finland. Konttinen also describes the special nature of Churberg's art and makes links between some of her artworks and the poems of the Finnish national poet Johan Ludvig Runeberg (1804–77). Furthermore, Konttinen discusses Churberg's career after 1880, when the artist stopped painting and started to promote Finnish handicraft and to write art reviews.

In her pioneering and extensive studies on Finnish women artists, Konttinen has also discussed Victoria Åberg's art in several contexts. In addition, Åberg's life and work has been studied by Pia Juutilainen for an exhibition catalogue in 1992, and after that for her unpublished Master's thesis in 1996.

In the case of Magnus, Wilhelm and Ferdinand von Wright, the first common biography of the brothers, *von Wrighterna på Haminanlaks*, was published by their later relative Vivi Lindberg in 1926. However, Aune Lindström's doctoral thesis *Taiteilijaveljekset von Wright* (1932) was the first publication that mainly focused on their artistic careers. Later their art has been discussed in several different articles by Jukka Ervamaa. The brothers' journals were published and edited in seven different volumes by Anto

Leikola, Juhani Lokki and Torsten Stjernberg between 1996 and 2010. Before that Leikola, Lokki and Stjernberg had written about the brothers' ornithological artworks in *Taitelijaveljekset von Wright. Suomen kauneimmat lintumaalaukset* in 1986 (revised editions in 1994 and 2008).[25] The brothers' artistic and scientific careers were also covered in the exhibition catalogue *The von Wright Brothers. Art, Science and Life* in 2017.

In Germany, Düsseldorf landscape painting has been mostly investigated by the museums based in Düsseldorf and Karlsruhe. This can be explained to some extent by the political incoherence of the country in the nineteenth century, as well as by the diversity of the art scene.[26] For this reason, the most recent investigation dealing with the subject has been carried out in connection with exhibitions arranged in these cities. Thanks to meticulous investigation, exhibition catalogues have provided a lot of useful information. The first large-scale display of Düsseldorf art was introduced in the exhibition *Düsseldorfer Malerschule* and the corresponding catalogue in 1979. It had been preceded by two smaller exhibitions, *The Hudson and the Rhine* and *Düsseldorf und der Norden*, both of which took place in 1976. The latter was actually a touring exhibition, which started in Bergen in Norway and continued via Oslo, Gothenburg, Stockholm and Helsinki, finishing in Düsseldorf. Almost twenty years later, in 1995, the exhibition *Angesichts der Natur* explored the relationship between sketches and paintings in landscape art during Romanticism, and the artworks in the catalogue cover the years 1780–1850.[27] The exhibition project had started two years earlier in Trento, presenting artworks from Denmark, Germany, Austria and Switzerland. The impact of the Düsseldorf School worldwide was updated in the exhibition *Die Düsseldorfer Malerschule und ihre internationale Ausstrahlung 1819–1918*, which was arranged at the turn of 2011–12. As for the leading figures in Düsseldorf landscape painting, the Staatliche Kunsthalle in Karlsruhe arranged a wide-ranging career survey of Lessing's work in 2000. Several scholars contributed to the exhibition catalogue *Carl Friedrich Lessing: Romantiker und Rebell,* which also touched on Lessing's interest in geology. Two years later, a similar reassessment was made of Schirmer's landscapes in *Johann Wilhelm Schirmer in seiner Zeit* (2002), also shown in Karlsruhe. In Düsseldorf, Schirmer's life and work gained an even more extensive investigation in 2010 with the large exhibition project *Johann Wilhelm Schirmer – Vom Rheinland in die Welt*. As for per-

25 The book was published in Sweden as *Bröderna von Wrights fåglar* in 1989.

26 To keep it simple and clear in this investigation, Germany refers to the geographical area of Germany today, although the country was very fragmented until its unification in 1871. In many studies, the area has been referred to as 'German-speaking lands', but then it also includes today's Austria and Switzerland.

27 Bettina Baumgärtel points out that Romanticism had an impact on the landscape painting of the Düsseldorf School until the 1850s, at least in the artworks of Johann Wilhelm Schirmer, Carl Friedrich Lessing and Caspar Scheuren (1810–87). For the German concept of *Romantik*, see Baumgärtel 1995, 20–21.

sonal information on different artists who studied, worked and lived in Düsseldorf, the three-part reference book *Lexikon der Düsseldorfer Malerschule 1819—1918*, published in 1997–98, has provided the necessary information concerning individual artists. Furthermore, the extensive catalogue of the exhibition *Skandinavien och Tyskland 1800–1914* enlightens the relationship between different Nordic countries and Germany in the field of arts, music and literature in particular throughout the long nineteenth century.

My interest in landscape painting and landscape as a phenomenon was sparked off by Malcolm Andrews's *Landscape and Western Art* (1999), which made me realise that landscape is an artifice. Following this approach, Ville Lukkarinen and Annika Waenerberg's study, *Suomi-kuvasta mielenmaisemaan* (2004), discusses Finnish landscape painting at the *finde-siècle* from the point of view of national landscapes and their development, using the approach from the new environmental consciousness, humanist geography and phenomenology. Lukkarinen and Waenerberg have leaned on theories presented by Raymond Williams, W. J. T. Mitchell, Edward S. Casey and the Finnish scholar Yrjö Haila, among others. The notion of landscape as a cultural construction, as indicated by these writers, has influenced this study to a great extent and it will be discussed later in this chapter in connection with the concepts of 'landscape' and of 'nature'. I have also benefited from some recent studies of landscape in Germany, such as Ludwig Trepl's *Die Idee der Landschaft* (2012) and Simone Hespers's *Kunstlandschaft* (2007). Trepl's work covers the emergence of landscape as a cultural historical concept, starting in the Enlightenment and finishing with today's ecological approach, whereas Hesper discusses the usage of the German concept *Kunstlandschaft*.

THE SCIENTIFIC APPROACH IN LANDSCAPE PAINTING

> *The history of art teaches us how gradually the accessory parts [minor aspects] have been converted into the main subject of description, and how landscape painting has been separated from historical [history] painting, and gradually established a distinct form; and lastly how human figures were employed as mere secondary parts [elements] to some mountain or forest scene, or in some sea or garden view.*[28]

28 *Die Kunstgeschichte lehrt, wie allmälig das Beiwerk zur Hauptsache der Darstellung wurde; wie die Landschaftsmalerei, von der historischen gesondert, als eine eigene Gattung auftrat; wie die menschlichen Gestalten bald nur als Staffage einer Berg- und Waldgegend, eines Seestrandes oder einer Gartenanlage gedient haben.* Humboldt 2004 [1845–1862], 225; Humboldt 1852, 83.

Over the course of time, landscape art has been influenced not only by art theory but also by attitudes towards nature. At the turn of the nineteenth century, the understanding of the non-human world changed. Later in the century, the progressive re-writing of Earth's history and re-evaluation of nature's powers had a great impact on attitudes in general. As well as aestheticians and philosophers, even some scientists participated in the discussion on the role of the arts in society, as well as their aesthetic qualifications, and how to define art in general. One such scientist was the German naturalist Alexander von Humboldt (1769–1859)[29], who described how landscape painting intensified the fascination of studying nature:

> *Landscape painting, and fresh and vivid descriptions of nature alike, conduce to heighten the charm emanating from a study of the external world, which is shown us in all its diversity of form by both, while both are alike [likewise] capable, in a greater or lesser degree, according to the success of the attempt to combine the visible and the invisible in our contemplation of nature.*[30]

As we can see in the citations above, Humboldt captures in one sentence how the status of landscape in the arts changed from being a mere setting to becoming the subject matter itself. The citations are from his monumental work, *Kosmos: Entwurf einer physischen Weltbeschreibung* (*Cosmos: A Sketch of a Physical Description of the Universe*, published in Germany in five volumes between 1845 and 1862)[31]. This change can be seen in the development of landscape painting in Düsseldorf in the nineteenth century, too. Hence the encounter with Humboldt's writings made me realise that it is his thinking that straddles the two main fields of this study: landscape painting and its relationship with natural sciences in the nineteenth century. Humboldt's major role throughout this study will be discussed in more detail in chapters one and two.

At the time when Humboldt was writing this, art and science were yet to become separate disciplines. Artists and scientists often worked alongside, or in collaboration. In fact, the separation took place later in the nineteenth century. Today, however, these two fields are coming closer once again and even meeting at some points. Many contemporary artists have an increasing interest in scientific methods, and they use these methods or combine them with their art. Although the intersections

29 For Humboldt's biographical notes I have used Thomas Richter's *Alexander von Humboldt* (2009) and Andrea Wulf's *The Invention of Nature. The Adventures of Alexander von Humboldt. The Lost Hero of Science* (2015).

30 *Wie eine lebensfrische Naturbeschreibung, so ist auch die Landschaftsmalerei geeignet die Liebe zum Naturstudium zu erhöhen. Beide zeigen uns die Außenwelt in ihrer ganzen gestaltreichen Mannigfaltigkeit; beide sind fähig, nach dem Grade eines mehr oder minder glückliche Gelingens in Auffassung der Natur, das Sinnliche und das Unsinnliche anzuknüpfen*. Humboldt 2004 [1845–1862], 225; Humboldt 1852, 82. In this study, I use the German version *Kosmos. Entwurf einer physischen Weltbeschreibung* (edited by Ottmar Ette and Oliver Lubrich, Einborn Verlag, Frankfurt am Main) from the year 2004 and an English translation by E. C. Otté of the second volume from the year 1852. I have added some changes in the citations of the translation to clarify the meaning of the sentences.

31 Later I will refer to it as Humboldt's *Cosmos*.

of art and science have been a major topic of academic discussion since the 1990s, this relationship in Düsseldorf landscape painting has not yet been addressed in Finnish art-historical discourse.

Originally, it was Timothy F. Mitchell's pioneering *Art and Science in German Landscape Painting 1770–1840* (1993) that established a connection between German landscape painting and the natural sciences. In his investigation, Mitchell applied Thomas Munro's definition of naturalism to landscape painting in Dresden, connecting it with the dominance of empiricism at that time and emphasising how we gain knowledge about the world through observation, as well as through experience. According to Mitchell, this new approach to nature created tension 'between the search for truth in the particular and the artistic goal of universal or enduring beauty', which caused 'the gradual transformation of the old formulas'.[32] Mitchell also points out how the relationship between empiricism and the taxonomies in the natural sciences was clear, but 'there was no interest in the interaction between the individual objects', and therefore 'German landscape artists continued to think of it as a loose collection of parts.'[33] According to Mitchell, it was the German painter Jacob Philipp Hackert (1737–1807) in whose art scientific naturalism became the firm basis for all of his landscape imagery. For Hackert, it was essential that not only could a botanist recognise each tree and plant, but also an artist could understand how the fracturing of rocks occurred.[34] Hackert's role will be discussed further in chapters two and three. Even so, there was a point in time when the understanding of nature changed, both in contemporary natural philosophy and in science, and correspondingly caused a shift of paradigm in landscape painting, which Mitchell placed in the 1830s and 1840s.

That said, Mitchell's ideas stimulated my interest in natural history and the history of science, offering a completely new point of view from which to examine landscape painting in Düsseldorf. More precisely, it was the work and ideas of Alexander von Humboldt that led me to look for the connection between Düsseldorf landscape painting and the natural sciences of the time. Therefore, I suggest that this change of paradigm, as described by Mitchell, was reflected in landscape art in Düsseldorf too, and the artworks, including sketches and studies in the open air, manifest this change in which Alexander von Humboldt's ideas played an important role.

In 2012, I gained access to an unpublished PhD thesis, *Eugène von Guérard and the Science of Landscape Painting* (2007), that Ruth Pullin

32 Mitchell 1993, 3.
33 Mitchell 1993, 41.
34 Ibid.

had carried out at the University of Melbourne in Australia.[35] Unbeknown to me, Pullin had been developing similar ideas to mine in her thesis, where she discusses the life and art of the Austrian-born artist Eugène von Guérard (1811–1901), who started his artistic career together with his father in Italy, then continued his art studies in Düsseldorf, and finally moved to Australia in 1852, where he spent almost thirty years, returning to Europe only in 1882. From von Guérard's landscape paintings and lithographs, Pullin draws the conclusion that his trip to Australia was inspired and nurtured by Humboldt's ideas and his life work. This is also confirmed by the fact that von Guérard worked together with several scientists, two of whom were from Germany: the botanist Ferdinand von Müller (1825–96) and the geophysicist Georg von Neumayer (1826–1909). Pullin states how these scientists, being part of the German scientific tradition, followed Humboldt's visions and methodologies. It is also noteworthy that von Guérard made an expedition with von Neumayer to Cape Otway and to Mount Kosciuszko as part of von Neumayer's magnetic surveys, a project that was supported by Humboldt himself. [36] Moreover, the catalogue of the touring exhibition *Nature Revealed* (2011), to which Pullin contributed a great deal, has helped me to understand the extent of Humboldt's influence on the artists in Düsseldorf. In addition, my knowledge of the subject has been expanded by other exhibition catalogues, such as *Expedition Kunst. Die Entdeckung der Natur von C. D. Friedrich bis Humboldt* (2003), which drew my attention to the developments between art and science – geology in particular – in Dresden and Norway at the beginning of the century. This topic was handled anew with the focus on Norway in *Discovery of the Mountains* (2008).

If we examine the historical background of this study in the field of sciences, one major question comes up: what caused the change from natural history to natural sciences at the turn of the eighteenth and nineteenth centuries? One possible answer to this question has been presented by Michel Foucault in his essay *Les mots et les choses* (1966)[37]. Instead of traditional thinking, Foucault regards the history of culture rather as an 'archaeological' approach to the history of thought and knowledge, and he comes to the conclusion that every historical era has its common underlying conditions of truth which concern life, language and labour and which make scientific discourse possible and acceptable. According to Foucault, these conditions have changed twice in the course of history, causing a break of the episteme: First at the beginning of the Classical episteme

35 I am indebted to Marcell Perse at the Jülich Stadtmuseum for giving me access to Pullin's dissertation.

36 Pullin 2007, 149.

37 In this investigation, I have used the Finnish translation *Sanat ja asiat* (2010), translated by Mika Määttänen.

at the turn of the sixteenth and seventeenth centuries, and again at the beginning of the nineteenth century, which also marked the end of the Classical episteme.[38] For this study, it is noteworthy that the dissolution of the Classical episteme preceded the change of paradigm in the 1830s and 1840s, as described earlier by Timothy F. Mitchell. In geography, nonetheless, this change seems to have happened only after Humboldt and Carl Ritter's (1779–1859) deaths in the same year. In the scope of this study, what is even more interesting is the fact that the 1830s and 1850s seem to mark two pivotal points in the course of the century. In the 1830s, *Naturphilosophie* in Germany began giving way to new ideas, such as Positivism and Materialism, strengthening the position of an empirical approach in the sciences. It was also the time when new theories about the planet's age were introduced. Furthermore, the year 1859 not only witnessed the death of Humboldt and Ritter, but also marked a new chapter in the history of the natural sciences with the publication of Charles Darwin's *Origin of the Species,* which has had far-reaching consequences even up to today. As a result, the orientations related to *Naturphilosophie* and the Romantic movement in German culture were transformed and finally abandoned.[39]

As for the scientific approach in this investigation, I have drawn heavily on the history of science as represented in *Making Modern Science: a Historical Survey* (2005), by Peter J. Bowler and Iwan Rhys Morus, as well as in the Finnish translation of Bowler's *The Fontana History of the Environmental Sciences* (1992), translated by Kimmo Pietiläinen. In addition, Richard G. Olson's *Science and Scientism in Nineteenth-Century Europe* (2008) has elucidated how different sets of forces shaped scientific thinking in the nineteenth century. In his book, Olson creates a bigger picture of how the concept of 'science' and scientific knowledge had a different meaning in the German-speaking lands before the mid-nineteenth century. This had its background in the German philosophical writing of the time, especially in *Naturphilosophie*, in which the relationship between mind and nature in the perception of nature had gained increasing attention since the end of the eighteenth century. Correspondingly, the definition of observation taking place between a subject and reality had become a major topic of discussion. These phenomena create the historical and social context of this study, and we can assume that artists were aware of the developments in the natural sciences. Consequently, this study argues that the evolution of natural history into separate fields of the natural sciences, as well as the

38 Mikkonen 2005, 139.
39 Olson 2008, 87–88.

empiricist approach applied in the natural sciences, inspired artists to look for similar methods in their own work. If we compare this with the situation today, many artists are taking a stand on ecological issues such as climate change in their art and are also working together with scientists. Furthermore, I suggest that it is this development in the field of science which partly led to the increasing interest among artists in outdoor sketching and painting in the spirit of an empirical approach, which will be addressed below in connection with phenomenalism.

In Finland, one of the influential figures at the University of Helsinki was Zacharias (aka. Zachris) Topelius (1818–98), who also actively participated in cultural affairs. Topelius, a multi-skilled person and a great force in the nineteenth-century Finland, was an author, a journalist, Secretary of the Finnish Art Society and a geography lecturer at the Imperial Alexander University. As the first person in the country to teach geography, he played a significant role in creating the image of Finland as a distinctive geographical unit. Allan Tiitta's *Harmaakiven maa. Zacharias Topelius ja Suomen maantiede* (*Land of Grey Granite. Zacharias Topelius and the Geography of Finland),* (1994) enlightens us about Topelius's personality both as a writer and university teacher connecting cultural affairs with geography and its developments in Finland. Tiitta suggests that Topelius' prominent role was partly caused due to the change of the role and specialisation of geography at the time.[40] Due to the close alliance of different fields of natural sciences at the time, Topelius's activities were not limited only to geography, as he also lectured on geology, botany and meteorology at the university. In comparison, Pertti Lassila has written a study, *Runoilija ja rumpali. Luonnon, ihmisen ja isänmaan suhteista suomalaisen kirjallisuuden romanttisessa perinteessä* (2000), on the relationship between nature, man and the fatherland in the Romantic tradition of Finnish literature, in which he also discusses the Romantic, religious and political spirit of Topelius's descriptions of nature. In addition, Lassila develops these themes further in his book *Metsän autuus – Luonto suomalaisessa kirjallisuudessa 1700–1950* (2011). I believe Topelius can be regarded as Humboldt's Finnish 'counterpart' to some degree, and his writings will be applied to the examination of Finnish landscapes in this study.

As for Humboldt's fame in the Nordic countries, it is noteworthy that his writings reached the Nordic countries at an early stage. In 1836, a Swedish version of William Macgillivray's book, *The Travels and Researches*

40 Tiitta 1994, 7.

of Alexander von Humboldt (*Friherre Alex. von Humboldts Resor och Forskningar i sammandrag ur hans arbeten*, 1832), was published. In addition, Humboldt's life work, *Kosmos: Entwurf einer physischen Weltbeschreibung,* was translated into Swedish soon after its publication, and several excerpts were issued by the Finnish senator, professor of philosophy and journalist Johan Vilhelm Snellman (1806–81) in his newspaper *Litteraturbladet*.[41]

NATURALISM, DETAIL REALISM AND PHENOMENALISM

In the twentieth-century art-historical discourse concerning Düsseldorf landscape painting, several scholars have leant on the term 'detail realism' when trying to define the stylistic features characteristic of these landscapes. The term has been used mostly to indicate the meticulous depiction of different details in the landscapes. If we compare this later definition with the discourse in Düsseldorf in the nineteenth century, artists there, including Holmberg, talked about 'naturalism'. When Holmberg arrived in Düsseldorf in 1853, contemporary naturalism was the artistic trend, and one was supposed to go out to make studies from nature. To illustrate this, he wrote in a letter,

> *The first principle of the Düsseldorf school is: let nature be your teacher. This is why the artists make painting trips every summer and I am going to do it as well, but in my home country, which is so beautiful.*[42]

Holmberg, writing to his cousin Amanda soon after his arrival, said that he would join the group of 'naturalists', and how these naturalists regarded nature as their teacher, but one was not supposed to copy paintings.[43] Holmberg decided to follow their example, but he started his art studies by copying works by Erik Bodom (1829–79), a Norwegian artist, after which he planned to make his own compositions. In order to realise his aim, Holmberg moved to Grafenberg, a small village to the east of Düsseldorf in those days. From there he would make outings to beautiful places.[44] In another letter home, Holmberg further elaborated on the concept of naturalism in terms of the technique that he used when painting the picture of *Kyrö Rapids* in 1854, although he composed it in the studio; thus he explained,

41 Leikola 1993, 234–235.

42 '*Düsseldorfskolans första princip är: låt naturen vara din lärmästarinna. Varje sommar resa därföre dess målare på studieresor, så tänker jag också göra och varför skulle jag då icke helst göra mina studier i mitt eget fädernasland, som är så vackert.*' Holmberg's letter on 15 November 1853, ÅA/HA.

43 *'Kärnan af målarna äro naturalister och till dem kommer jag väl att räkna mig. Naturen, säga de, bör vara lärmästarinnan, man bör icke kopiera taflor.' 'The core group of the artists consists of naturalists and I am going to join them. Nature, they say, shall be your teacher, one is not supposed to copy paintings.'* Aspelin-Haapkylä 1890, 39.

44 Aspelin-Haapkylä 1890, 50.

> […] *A naturalist likes to paint in the midday light, because then one can get closest to nature. He uses cloudy weather, because with the help of shadows, which nature [clouds] casts on the ground, he can create effects. In my big painting, one of the shades cast by clouds falls on the rocks on both sides of the rapids, and the other one, even though weak, on the foreground. Although [it is] difficult to represent nature in a beautiful and natural way, [it] should at least flicker in them.*[45]

Another contemporary definition of naturalism in mid-nineteenth century Düsseldorf was given by the physician and art critic Wolfgang Müller von Königswinter, who was a member of the artists' association, [der] *Landschaftliche Komponierverein* (for this, see chapter four). According to Müller von Königswinter, naturalists usually have certain dramatic elements (*ein gewisses dramatisches Elemen*t), but the *Stimmungsmaler* seldom look for non-domestic motifs. Besides, Müller von Königswinter defines Schirmer as a representative of a stylistic landscape (*Stylistische Landschaft*), whereas in Lessing's paintings naturalism was combined with the atmosphere, *Stimmung*, and they were Romantic in a positive sense.[46] He also believed that the landscapes of Andreas Achenbach (1815–1910) were naturalistic.[47] Later, Fanny Churberg emphasised the importance of studies made from nature, too.[48] In a letter to Helga Söderström (1849–1936), a young Finnish woman artist who came to study in Düsseldorf, Churberg advised her to make studies from nature every day,

> […] *if I can give you a piece of advice, please do not let a day go by without making studies from nature in the summer, without fear and with no return. It is the first thing that will be required here – and without studies you cannot gain very much.* […][49]

It was the first priority in the Düsseldorf art community and vital for learning. As for the level of naturalism that was achieved at that time, the German art historian Wolfgang Hütt claims that the actual paintings that were composed according to these methods do not transmit the same accurate sense of nature, because the artists had to adapt their paintings to please their audiences, who still expected to see moody landscapes depicting the ideal.[50] I would suggest that it is perhaps not that simple, but

45 *'Naturalisten målar helst höjdagbelysning, emedan man i den kan komma naturen närmast. Han använder molnbetäckt luft, emedan man medelst de slagskuggor, som naturen kasta på marken kan frambringa effekt. På min stora målning falla tvenne molnslagskuggor, den ena öfver höjderna på båda sidor om forsen, den andra ehuru svag på förgrunden. EH strävande att framställa naturen vackert och naturligt, borde åtminstone skymta fram i dem.*' Holmberg's letter on 14 December 1854. SKS.

46 Müller von Königswinter 1854, 351.

47 Müller von Königswinter 1854, 334.

48 Andree 1979, 284.

49 '[…] *om jag får uttala ett råd, ville jag bedja Eder under sommaren icke låta bli en dag gå förbi, som Ni, ej för- och eftermiddag, använde till att göra studier efter naturen, utan räddhåga och utan återvändo. Det blir det första, som här efterfrågas – och utan studier skall Ni ej mycket kunna inhemta.* […]' Fanny Churberg's letter to Helga Söderström on 27 May 1872, KKA/HA; Lindström 1936, 326.

50 Hütt 1995, 177.

rather a feature that varied from artist to artist and correspondingly from artwork to artwork, even within a single artist's production.

The meaning of the concept 'naturalism' is, nonetheless, problematic and has changed over time. Today, we are more familiar with the meanings that were connected to it in Finnish art, and French art respectively, during the second half of the nineteenth century, especially in the 1880s. In this study the meaning of the term 'naturalism' deviates from its better-known usage in French arts in the 1880s, when it was used to describe the method of painting and the subject arising from social reality and everyday life. Therefore, the term is written with a small 'n' when referring to the subject of this study. Otherwise it is written with a capital 'N'.[51] According to Thomas Munro, the term 'naturalism' entails 'accurate representation of nature including man and his works, especially as to their visible appearance'.[52] Strictly speaking, it can be expressed as fidelity to the particularities of the object. In later studies of Düsseldorf landscape painting from the twentieth century, the term 'detail realism' has been applied very much with the same meaning. There, as the name indicates, it has been used when talking about the details of nature, but additionally it has achieved further meanings, such as a 'more realistic' and 'objective' depiction of nature.[53] The general tendency towards naturalism or detail realism in Düsseldorf landscape painting dates back to the role that Dutch landscape art played in the genesis of the German landscape tradition. In the eighteenth century, as Timothy F. Mitchell has shown, German artists were closer to Dutch artists, such as Allaert van Everdingen, Salomon and Jacob van Ruysdael, or Antonie Waterloo rather than Nicolas Poussin, Gaspard Dughet or Claude Lorrain.[54] This development appears in Dresden at the turn of the century, too, and it appears especially in the depiction of rocks and foliage.[55] As such, I would like to refer to naturalism in the way that the artists did in Holmberg's time rather than in terms of detail realism, although I find that concept just as applicable. Consequently, the term 'Düsseldorf naturalism' could be used too.

Instead of naturalism or empiricism, the German scholar Charlotte Klonk, who has studied the relationship between science and nature in British arts at the turn of the century in her book, *Science and the Perception of Nature* (1996), has applied the concept of phenomenalism in her work. Klonk defines this notion as 'the complex of attitudes concerning the relationship between mind and nature that grew in force at that time'.[56]

51 For the meaning of Naturalism in French art, see, for instance, Becker & Weisberg 2010, 13–16.

52 Munro 1960, 133.

53 Rudolf Theilmann talks about a shift from Schirmer's idealism (*Idealität*) to Andreas Achenbach's naturalism, and places Hans Gude between them. Theilmann 1979, 139; See also Reitala 1986, 37. Compare with Mai 2017, 116–118, 122–123, 127.

54 Mitchell 1993, 17.

55 Mitchell 1993, 12, 27.

56 Klonk 1996, 5.

She elaborates the concept further by stating how: '[…]artists and scientists must confine themselves strictly to what is given to the perceiving subject, without making any presuppositions concerning the underlying mechanisms by which what is observed is connected.'[57] Nevertheless, Klonk emphasises that this phenomenalism is not a form of subjectivism, but tries 'to capture reality faithfully', that is, 'as it appears' and 'not as it is in itself or in its underlying essence'.[58] Hence, the background of phenomenalism seems to lie in the theory put forward by Immanuel Kant (1724–1804) about producing knowledge according to which the faculty of understanding cannot investigate the world as it exists or as a being itself. Our understanding is focused on the world as it shows itself to us, whereby the mind exerts decisive influence. Therefore, the necessary truth about the world is actually true only to the extent that our human understanding is capable of perceiving the world.[59] Although Klonk uses the concept of phenomenalism in connection with early open-air painting in Britain, I suggest that her definition of phenomenalism could be applied to describe artists' approach to nature in Düsseldorf landscape painting too. To cite Klonk's words in the description of the subject-matter in the artworks of Joseph Mallord William Turner and John Constable, the motifs of sketches and studies in Düsseldorf landscape painting can also be described as 'anchored within the realm of observable natural phenomena'.[60]

In the perception of nature, phenomenalism deals with vision and cognition, which are also subjects that philosophers have been interested in defining since ancient times. In the comprehensive study about the relationship between science and art, *Picturing Science, Producing Art* (edited by Peter Galison, Caroline A. Jones and Amy E. Slaton, 1998), Krzysztof Pomian explores the history of the concepts 'vision' and 'cognition' in the production of knowledge. He describes how knowledge and knowing were related to seeing and how vision was supposed to be an analogue of intellectual cognition. Further, cognition – meaning the production of knowledge – was divided into sensory and intellectual cognition. Based on assumptions by David Hume (1711–76) and Immanuel Kant, Pomian elucidates how sensory cognition was seen as being opposed to intellectual cognition and as creating an indirect relationship between us and external objects. In contrast, intellectual cognition was regarded as metaphysical and consisting in an immediate grasping of sensations.[61] Nowadays, this division into sensory and intellectual cognition is no longer

57 Ibid.
58 Ibid.
59 Korkman & Yrjönsuuri 2008, 310.
60 Klonk 1996, 5.
61 Pomian 1998, 211, 222, 226.

valid. Both intellectual cognition and sensory knowledge are considered to be physical facts that are semiotic as well as cultural. Moreover, there is a third type of cognition produced by different instruments, which Pomian calls instrumental cognition. The development of this has led to a new idea of sensory cognition. As a result, cognition is no longer regarded as vision or as production, but instead spoken of as indirect cognition. Therefore indirect knowledge is practised with instruments, but we also 'simply contemplate the world around us', as stated by Pomian.[62]

When looking at a landscape painting, we can ask whose view it is. We can also ask what part of the surroundings is included in the landscape, or which elements have been selected from it and which elements left aside. We can try to imagine the place where the painter was while composing the picture. Moreover, we tend to associate the inner spectator of the view with the painter and therefore assume that we are looking at the same view from the same place as the artist. We can say that landscape is something subjective, because we all see it in a different way. If we make a picture from the same point of view, there will be as many different representations as there are presenters. The meaning of looking has varied in different cultures and eras. In western culture looking has been connected with knowledge and study, making the relationship between the sense of vision and knowledge a popular theme for research.[63] Consequently, we know that there is no such a thing as an innocent gaze. While looking at pictures and images, we project different meanings onto them using a preconscious instruction of how to read pictures, which is based on our cultural conditioning. Our experiences and knowledge play a major role in what we perceive. That said, I would like to propose that artists' approach to nature, and more precisely to the landscape in front of them, can also be regarded as contemplation as described by Pomian. In addition, Humboldt talks about the contemplation of nature. During their wandering trips, they recorded their observations of nature by drawing and painting sketches and studies. As for indirect knowledge, we know that in the nineteenth century artists used certain instruments as aids: *camera obscura* and photography. And yet, their experiences were not limited to seeing only, but comprised other senses as well – hearing, feeling and smelling in particular. In their choice of motifs contemplation played a crucial role, and contemplating continued afterwards while working in the studio.[64]

62 Pomian 228–229.

63 For instance, Kenneth Clark studied the relationship in his *Landscape into Art* (1949). Ernst Gombrich developed the discussion further in his *Art and Illusion* (1960). In 1983, Svetlana Alpers introduced a new approach to seventeenth-century Dutch art in her *The Art of Describing*. A more recent and updated study into the subject is Whitney Davis's *A General Theory of Visual Culture* (2011).

64 For the way artists perceived information and how this information was organised in their memory, see also Gockel & Volmert 2017.

LANDSCAPE AND NATURE

Landscape and nature comprise the two key concepts of this investigation and they go 'hand-in-hand' throughout it. It is not easy to define the meanings of the terms 'nature' and 'landscape' exactly, since they are more or less culturally bound. In many languages, the terms 'nature' and 'landscape' are somehow connected and not easy to separate. Moreover, their meanings have varied over time. Since the mid-1990s, landscape studies have focused on how the landscape is constructed in different cultures rather than listing the production of a single painter and analysing their works of art.[65] Therefore I find it essential to elucidate the socio-historical background of these key concepts.

As stated by the German scholar Ludwig Trepl, landscape is a term used in the humanities and social sciences, but the objects that constitute a landscape – mountains, clouds, trees, forests – are studied by the natural sciences. In natural sciences, these terms are used to explain phenomena, whereas in humanities and social sciences the aim is to understand the meaning of these terms.[66] The concept of landscape has carried a range of meanings, varying from a territory to a view of nature. Deviating from the usage of the term 'nature', we have combined different aesthetic qualifications with landscape: it can be beautiful, sublime, picturesque, melancholic, heroic etc. Thus, landscape constitutes an aesthetic category.[67] Today, when we think of an ideal landscape, we combine it with such concepts as diversity, originality and beauty. These are qualities that are also defined in several nature protection programmes.[68] As for the usage of the term, there is variation in different languages. In German art-historical discourse a special concept, *Kunstlandschaft*, was even created to classify material in terms of space. It has been occasionally translated as an 'artistic landscape', although it is not exactly equivalent.[69]

Similar ideas to the discourse in German-speaking lands were developed by W. J. T. Mitchell in his *Landscape and Power* (1994 and 2002). His writings have served as a catalyst for further discussion in the Anglo-American world. Mitchell defines landscape as a space or the view of the place. Instead of regarding landscape as a genre of painting, he treats it as a vast network of cultural codes, and expands the meaning of the noun 'landscape' to include its use as a verb as well.[70] To be pre-

65 Lukkarinen & Waenerberg 2004, 14–15.

66 Trepl 2012, passim. 28–30.

67 Trepl 2012, 17.

68 Trepl 2012, 156.

69 Simone Hespers defines *Kunstlandschaft* as a geographical space as it manifests itself on Earth's surface. Hespers 2007, 13–14, 16.

70 Mitchell 2002b [1994], 1–2.

cise, Mitchell defines landscape as a natural scene which is mediated by culture. As a consequence, the landscape changes from being only an existing object into an active subject, which means an instrument of cultural power.[71] Mitchell indicates that if we ask somebody to look at a landscape, we do not ask them to look at any specific thing but rather to 'engage in a kind of conscious appreciation of space as it unfolds itself in a particular place'. If we compare Mitchell's ideas with those of Trepl, we can say that for Mitchell, a place can be a specific location, whereas a space is a site activated by movements, actions, narratives and signs. Further, a landscape is that site encountered as an image. In contrast, Trepl talks about the landscape as an object (*Gegenstand*) or a situation (*Situation*) which is dependent on one's location in space. If one moves, the landscape changes. Correspondingly, the horizon moves according to the spectator's movements. Furthermore, Trepl states that it is possible to be in a landscape, because it surrounds one from all directions although it changes when one turns.[72]

In a similar vein the Finnish scholar Yrjö Haila talks about the ambiguity of landscape as a concept. On the one hand, landscape refers to our immediate surroundings, but on the other hand it raises the question of what part of these surroundings is included. Therefore we need a perspective in order to define a landscape. Haila points out that, although landscape is a human construct, it can also be real. The reality of landscape is not based on how truthful a representation is, but the landscape becomes real by influencing the behaviour and action of people. In effect, it is a human creation, an artefact, which is part of our reality.[73]

Based on the definitions above, in this study I apply the concept of landscape as a cultural construction, and thus as a natural scene mediated by culture. It can be also regarded as a *Kunstlandschaft* which carries not only a variety of aesthetic qualities, but also references to scientific phenomena from the field of natural sciences of the time.

If we take a look at the historical background of the concept of landscape, which is essential for our understanding of the concept, we can say that generally speaking, landscape is a phenomenon that emerged in a certain culture at a certain time; hence, it has its origins in the western world, China and some other countries. In Europe, the emergence of landscape is usually connected with the beginning of the New Era in the Renaissance.[74] In those days it was a technical term for a painting that de-

71 Mitchell 2002c [1994], 5.

72 Mitchell 2002c [1994], vii-viii; Trepl 2012, 18–19, 22.

73 Haila 2006, 18–22; See also Andrews 1999, 1.

74 The starting point is said to be the description by Petrarch of a view from the top of Mont Ventoux in Provence on 26 April 1335. Trepl 2012, 53; Waenerberg 2004, 199.

picted a landscape, and from there it was adopted into wider usage.[75] In the eighteenth century, the concept of landscape gained a new meaning as a motif in painting and literature. From the arts, it was adopted into science and German geography as a geognostic description by Alexander von Humboldt at the beginning of the nineteenth century. At this stage, it again had its original meaning, referring to an area.[76] Originally, the German term *Landschaft* is said to have denoted a geographical area defined by political boundaries.[77] The older Germanic cultural and territorial idea of *Landschaft* was combined with newer scenic concepts of land and landscape by the Jena circle during the Romantic era. Important figures in this circle were Friedrich Schelling (1775–1854), August Wilhelm (1767–1845) and Friedrich von Schlegel (1772–1829), as well as the Norwegian-born botanist, geologist and natural philosopher Henrik Steffens (1773–1845).[78]

Our modern conception of landscape has its roots to a great extent in the Enlightenment. This was a period where the notion of an ideal landscape emerged and the landscape garden as a new form of art originated. In fact, landscape and the landscape garden were closely connected and represented the notion of freedom and progress.[79] At that time the notion of freedom was bound together with reason, whereas progress was connected with the development of the natural sciences. There were two major movements of the Enlightenment: Liberalism in Britain and the democratic one in France. Although both movements had different conceptions of people, society and their relationship with nature, they also shared some common interests. In both movements, nature was identified with reason and was also seen as something to be conquered and controlled by man. Landscape, however, was important only for the democratic movement in France where it was considered as a means of educating people. The depiction and description of landscape in arts and novels helped to make people virtuous.[80]

Considering the concept of landscape is as important as exploring the background of the term 'nature'. There are two famous definitions of the concept of nature: the first is the so-called material definition given by Aristotle, who defined nature as something that takes shape and changes by itself. Therefore, it constitutes the opposite of something artificial produced by man; the second was introduced by Kant, who defined nature as the existence of things, which is ruled by general laws. Kant's definition, being formal and logical but also non-judgmental, has been adopted in

75 Trepl 2012, 31–32, 51–52.

76 Humboldt deals with landscape aesthetics in the first two volumes of *Cosmos* (1845–62). Mitchell 1993, 8; Granö 1996, 45.

77 For the etymology of the concept *Landschaft*, see Olwig 1996, 631–633; Andrews 1999, 28–29; Trepl 2012, 162–163.

78 Olwig 1996, 641.

79 Trepl 2012, 65.

80 Trepl 2012, 69, 81–82.

the natural sciences.[81] Our conceptions of nature concern the relationship of man with nature; hence, they describe man's feelings for nature and interpretations of it. What is characteristic of these conceptions is that they long for purpose and order in nature, but they also express prevailing ideas about human opportunities in a culture.[82]

Nowadays, we regard nature as the opposite of artificial and as something omnipresent. Although it reaches beyond the scope of our everyday life, we interact with it and are a part of it. We even talk about 'human nature'.[83] Interestingly, the words meaning nature in Finnish (*luonto*), German (*Natur*), and Norwegian (*natur*) are all singular. The Welsh academic Raymond Williams states how the appearance of one consistent nature had a major impact on humans' relationship with physical reality. This nature had a competitor which was single and abstract, but also a personified religious being, in other words the monotheist God. In Western culture, God has been regarded as the absolute ruler and nature as His servant. These ideas have interacted throughout history.[84] Furthermore, the relationship between God and nature became a fervent topic for debates in natural history and the natural sciences in the nineteenth century. In a similar way, the artists examined in this thesis contemplated their relationship to nature, which they too mainly saw as being God's creation.

As an alternative to the 'degenerated' urban life of the nineteenth century, artists started to admire 'untouched' and 'wild' nature, or even wilderness devoid of human impact. In the previous century, wild nature had been considered something threatening, belonging to the realm of the *sublime*, but gradually the qualifier 'wild' changed into a positive aesthetic statement. By contrast, the concept 'untouched' is more problematic, as Lukkarinen points out, and this idea has been challenged in the environmental philosophical discussion of today. Therefore, Lukkarinen asks how the concept 'untouched' should be understood and to what degree nature was untouched in Europe at that time. There were areas where nature was no more in its natural state, but rather modified by culture and pasturing on forest landscapes. As a consequence, there was no forest in its natural state either, but rather a cultural landscape modified by agriculture or forestry. Lukkarinen also claims that we cannot posit the two concepts 'nature' and a 'human' in opposition to each other either because we are dealing not only with intermingling ecologi-

81 Trepl 2012, 14–15.
82 Glacken 1967, 3.
83 Haila & Lähde 2003, 14.
84 Williams 2003, 43–44.

cal processes, but also with concepts that are intertwined.[85] In this sense, there seems to have been variation in different parts of Europe though; for example, in Finland the differences between the southern part of the country and Karelia in the east or Lapland in the north were significant. Moreover, the differences between Finland and Germany were also significant at that time.

In the eighteenth century, the ideas of nature were discussed by the representatives of natural- or physico-theology and its critics. Physico-theology was a movement that was founded by William Derham and John Ray in England at the end of the seventeenth century and it was powerful throughout the following century. Its supporters thought that God had created the best possible nature for human beings, making it appropriate and providing primary means for belief.[86] The discussion dealt with fundamental questions concerning the proofs for God's existence, final causes and orderliness in nature. The goal of physico-theology was not to demonstrate that everything in nature had been designed for man, but its sights were set on something higher, regarding man as the highest being in the hierarchy of creation. It aimed at a grand interpretation of nature that was consistent with science and religion.[87] To this end, everything in nature was useful for humans and they were supposed to benefit from this. The Swedish botanist Carl von Linnaeus (1707–78) and the German philosopher Johann Gottfried Herder (1744–1803) are regarded as supporters of physico-theology, whereas Johann Wolfgang von Goethe (1749–1832) and Kant were among its critics. Using natural sciences, the supporters wanted to prove that everything in nature was organised rationally. By stating that the organisation of nature had nothing analogous to causality known to us, Kant attracted attention to the participation of the human mind in constructing a concept of nature.[88]

Physico-theology was important in the history of geographical thought and it had a far-reaching impact in the nineteenth century, when it was followed by positivism. During the heyday of positivism, people believed that a constant and infinite progress was possible. According to this belief, nature offered endless support and security for progress. The idea that society could shape nature and human beings comprised an essential part of this so-called myth of progress. Since human beings constituted the supreme part of nature, nature had been created and served for the wellbeing of human beings.[89]

85 Lukkarinen 2004, 50–51.
86 Trepl 2012, 104.
87 Glacken 1967, 504–505.
88 Trepl 2012, 105; Glacken 1967, 549.
89 Haila & Lähde 2003, 22, 27.

FINLAND AND NORWAY AS PERIPHERIES

As stated earlier, Hans Gude played a decisive role when Finnish artists were choosing Düsseldorf as a place to study landscape painting. As a matter of fact, for several reasons Norway provides an interesting point of comparison for this study. The political situations in Finland and Norway, as well as the movement towards independence, show a number of similarities in the course of the nineteenth century. There are similarities in the development of artistic life in both countries. In addition, in both of them landscape painting acted as one of the most important vehicles in defining their national identity. However, the positions of Finland and Norway do also vary: on the one hand, they seem to be quite equal in their relationship with Germany but, on the other, Norway can be said to have been a step ahead of Finland since Norwegian artists moved to study in Germany earlier. Generally speaking, we could say that Germany constituted a centre, whereas Finland and Norway were regarded as peripheries in the sense of science as well as the arts.[90] But we have to bear in mind that there were also centres and peripheries within these two countries. Along with the contemporary capitals in the nineteenth century Helsinki and Christiania (today Oslo), the former capitals Turku and Bergen formed other important centres.

The political situation in Finland changed radically after the war between Sweden and Russia in 1808–09, which marked the end of Sweden's 700-year rule over Finland. Finland became an autonomous Grand Duchy of Russia. The position of Norway also changed due to the Napoleonic wars, as Norway was transferred from Denmark to Sweden under the Treaty of Kiel in 1814. As a dual kingdom under the new Swedish king, Charles XIV John of Sweden (1763–1844), Norway was in a similar situation to some degree as Finland in its relationship with Russia. Both Finland and Norway remained in closer contact with their earlier rulers, Sweden and Denmark, in many respects for several decades.[91] Nationalism and its impact in Finland and Norway would offer an interesting point of view when considering the nineteenth century, but it would be too wide a topic to be discussed here.[92]

The development of local artistic life in Norway is reminiscent of that of Finland. In the eighteenth century, Norwegian artists used to travel to Copenhagen to study. In the nineteenth century, the situation started to

90 The concepts of centre and periphery are understood here as defined by Stein Rokkan. Rokkan defines the concept of periphery in geographical terms and talks about a spatial element which is subordinate to the centre. It is outside the centre and distant but, however, controlled by it. In addition to the geographical nature of peripherality, its dependence on the centre can be political, economic or cultural. The economy of the periphery tends to be poorly developed and the culture to be marginal, in other words, fragmented and parochial. The boundaries of a periphery can be penetrated due to different economic, cultural and political reasons. In the case of economics, the most common reasons concern trade and transactions related to it, whereas cultural reasons involve for example communications, lifestyles, ideologies and myths. Then again wars, invasions, conflicts and alliances are some of the political reasons. These transactions also determine the strength and distinctiveness of the boundary between the centre and periphery. Rokkan also points out that the periphery can be dependent not only on one centre but several. Furthermore, what is characteristic of a periphery – other than being distant and dependent – is that it also differs from the centre. Rokkan–Urwin 1983, 2–4.

91 For Finnish history, see Meinander 2011, and for Norwegian history, see Ingvaldsen & Larsson & Pedersen 2009.

92 For nationalism in Sweden, see, for instance, Kurunmäki 2004, 167–179; compare with nationalism in Finland, Liikanen 2004, 222–243, and with nationalism in Norway, Sørensen 2001.

change step by step as a public drawing school was established in Christiania in 1818, the Art Society followed in 1836 and the National Gallery in 1837, but the Art Academy was established only in 1909. In Finland corresponding developments took place some years later: the first drawing school was founded in Turku in 1830[93] and the second, also the predecessor of the Fine Arts Academy, in Helsinki in 1848. Before 1848, Finnish artists had to travel to Stockholm to take up art studies at the Royal Swedish Academy of Arts. The Finnish Art Society was established in 1846, and after several years of hard work, the Ateneum, housing the National Art Gallery and the Fine Arts Academy in the same building, was finally opened in 1887.[94]

It should be noted, too, that Norway started to gain international recognition in the arts thanks to Johan Christian Clausen Dahl, who travelled to Germany in 1818 on his way to Italy and settled permanently in Dresden in 1821.[95] He was followed by a number of his countrymen who became his pupils: Thomas Fearnley (1802–42), Knud Baade (1808–79) and Peder Balke (1804–87), among others. In addition, the position of Norway in terms of art education is different from Finland thanks to Hans Gude, who was one of the most influential instructors in landscape painting in Düsseldorf. As mentioned before, he guided several Finns into the world of landscape – both men and women, first in Düsseldorf and later in Karlsruhe. Along with Adolph Tidemand (1814–76), Gude was the most important Norwegian artist working in Düsseldorf in the mid-nineteenth century. They both attracted several Nordic artists to study in the city. Compared to Finnish woman artists,[96] it is interesting to notice that only one Norwegian woman artist is known so far to have travelled to study landscape painting in Düsseldorf at the time, namely Matilde Smith (1826–82); however, the situation changed little by little and in Karlsruhe there were already several Norwegian woman landscapists.[97] Tidemand had arrived there already in 1837 in order to become a history painter under Theodor Hildebrandt (1804–74). He had heard about Düsseldorf from a Dane called Adam Müller (1811–44), and it inspired him to travel there. Tidemand was followed by Gude some four years later in 1841 with the same intention. Gude's source of inspiration was the Norwegian poet Johan Sebastian Welhaven (1807–73) who encouraged him to travel there. In time, both Tidemand and Gude would abandon history painting; Tidemand in order to focus on genre painting depicting Norwegian peasants, and Gude to start painting landscapes. Gude studied landscape paint-

93 First the drawing school in Turku was meant for apprentices of the guild of painters who were all men at that time. In 1852 the school granted access to female students too.

94 For the development of art societies, see Zeitler 1997; for the development in Norway, see Haverkamp 2011, 173 and Dietrichson 1991.

95 Zeitler 1992, 9.

96 Along with Churberg and Åberg, there were Emma Gyldén (1835–74), Augusta Soldan (1826–86) and Helga Söderström (1849–1936) to name a few.

97 Gude admitted in a letter, which he wrote in order to recommend a grant be given to Matilde Smith in 1852, that he had his doubts about women studying art. Later, however, Gude was happy that his own daughter finished her art studies after having been married. Besides, Gude convinced the fathers of Signe Scheel (1860–1942) and Kitty Kielland (1843–1914) to let their daughters study art. In Düsseldorf, Smith took lessons not only from Gude, but also from Schirmer. Wichstrøm 1997, 30–32.

ing first as Andreas Achenbach's private student, then continued with Schirmer at the Kunstakademie.[98]

In some respects, Norwegians in Düsseldorf can be regarded as intermediaries between the Germans and the Finns. In this role, they delivered and filtered new ideas and impulses that had originated in Germany or that they had encountered there. These ideas concerned, for instance, the approach to nature and landscape. Along with Gude, many Norwegian artists received recognition in Düsseldorf and were well known, which can be seen, for instance, in exhibition reviews in *Kunst Blatt*. The role of Norwegians as intermediaries arose definitely from the language as well. Generally speaking, German acted as a *lingua franca* in the nineteenth century, and Finnish artists had some knowledge of it at least when they arrived in Düsseldorf; but there was no language barrier with other Scandinavians, because they could all communicate with each other in their mother tongues, which means Swedish, Norwegian and Danish in this case. In Finland, members of the gentry, to which Finnish artists belonged, were all Swedish-speaking at the time. This is an important fact that also played a decisive role with later Finnish artists when choosing a place to study abroad.[99]

DENMARK AND SWEDEN AS CENTRES

If Finland and Norway represented peripheries in terms of artistic life and education, Denmark and Sweden – Copenhagen and Stockholm respectively – acted as centres, since they already had their own art academies at the beginning of the nineteenth century.[100] Correspondingly, it was easier for Danish and Swedish artists to start their artistic training in their home countries and to have academic training earlier than in Finland and Norway.[101] Actually, Denmark was predominant among the Nordic countries during the first half of the century, and Copenhagen became a kind of artistic centre in the North.[102] In Denmark, this period is called the Golden Age, whereas in Sweden it has been regarded as a period of decline.[103] Nonetheless, it was popular among the artists in both countries to travel to Italy, and to Rome in particular. One of the attractions of going to Italy was the Danish sculptor Bertel Thorvaldsen (1770–1844), who was prominent in Roman intellectual and artistic circles and whose fame drew artists from different European countries and even from the USA.[104]

98 Askeland 1976, 11–12; Haverkamp 2003, 32.

99 For instance, the Finnish artist Victor Westerholm (1860–1919) came to study in Düsseldorf in 1878 due to lacking knowledge of French. Reitala 1967, 37.

100 The Royal Danish Academy of Fine Arts was originally inaugurated in 1754. Correspondingly, the Royal Swedish Academy of Fine Arts was founded in 1773, but it had already started as the Royal Drawing Academy in 1735.

101 This applies mainly to male artists. In Sweden, however, women were already allowed to study at the Royal Swedish Academy of Fine Arts in 1864. Before that, some women had been allowed to study drawing with a special permission. See Bengtsson & Werkmäster 2005, 41.

102 Several Norwegian artists also travelled to Copenhagen to study art.

103 In comparison, in Finland the latter half of the century is called the Golden Age.

104 Nordic artists came into contact with Germans in Rome, and correspondingly with the ideas and forms of the ideal landscape. For the Scandinavian artists in Rome, see for instance, Gunnarsson 1998, 56–77.

As for Düsseldorf, it is to be noted that it did not play such a significant role for Danish artists as it did for the Norwegians or the Finns. It also meant less to the Swedes. All in all, fewer Danish artists studied in Düsseldorf, around 15–20 altogether. This is due to the fact that the city became an important art scene for Nordic artists only in the 1850s, and this was a time when political tension started to influence the relationship between Prussia and Denmark, leading to war in 1864.[105] Nevertheless, Danish artists had contact with Germany before that, and they can be connected more closely with Dresden. Dahl had studied in Copenhagen before moving to Dresden, after which he had contact with several Danish artists, and some of them visited him there. In addition, the Norwegian philosopher Henrik Steffens, who had lived in Germany since 1804, introduced the ideas of German Romanticism to Denmark while lecturing in Copenhagen in 1802–03.[106] Besides, during the first half of the century, some German artists came to study in Copenhagen as well.

When discussing Danish Golden Age landscape painting, we can discern traces of early outdoor painting. However, instead of wild and mountainous views, which were popular in Finnish and particularly in Norwegian and Swedish landscape painting, Danish art portrays gently undulating fertile countryside where the relation between man and nature is intimate and loving.[107] Artists such as Christoffer Wilhelm Eckersberg (1783–1853) studied nature with a determination for truth. He was, in fact, the first Nordic artist who painted directly from nature in oil, and he also invented a perspective octant.[108] During his career, Eckersberg visited Paris (1810–13) and Rome (1813–16), and after his return to Denmark, he paid special attention to cloud studies. Eckersberg was also interested in meteorology and kept a meteorological diary between 1826 and 1851. His interest in meteorology might already have begun during his stay in Rome, where artists showed an enthusiasm for making cloud studies, but Torsten Gunnarsson suggests that it can also be connected with Dahl's visit to Copenhagen in 1826.[109] Eckersberg's interest in cloud studies had an obvious impact on his student Christen Købke (1810–48), but Købke might also have been influenced by Dahl, whom he visited in Dresden.[110]

As such, Eckersberg was interested in the natural sciences, and not only attended the lectures of local scientific societies, Selskabet for Naturlaere and Naturvidenskabeligt Selskab in Copenhagen, but also the popularised scientific lectures given by the Danish physicist Hans

105 Nørgaard Larsen 1997, 322.

106 Gunnarsson 1998, 37–38; see also Kragh 2013, 155.

107 Artworks of Danish Golden Age artists can be found in the collections of Ny Carlsberg Glyptotek, The National Gallery of Denmark (SMK) and The Hirschsprung Collection.

108 Gunnarsson 1989, 55; Gunnarsson 1998, 14.

109 Gunnarsson 1989, 106.

110 Gunnarsson 1989, 138.

Christian Ørsted, who was the leading figure in the romantic natural philosophy movement in Denmark. Ørsted regarded science as culture and education instead of being an incentive for technological and economic advancement, and he promoted this vision in his popular lectures.[111] Eckersberg was also one of the founders of the scientific association Naturvidenskabelig Forening, and he knew several scientists in person, including the astronomer Georg Frederik Ursin and the geologist J. G. Forchhammer.[112] In general, scientific research and knowledge played an important role in Danish culture during the Golden Age, and many scientists had close contacts with artists. Several Danish artists attended Ørstedt's lectures.[113]

The situation in Sweden was different from Denmark, despite the Swedes having their own art academy in Stockholm. When Swedish artists' attention turned towards Düsseldorf in the Nordic exhibition in 1850, the Swedish art scene was waning. The much loved classical landscapes of the Swedish wilderness by Carl Johan Fahlcrantz (1774–1861) had lost their appeal. Moreover, local audiences, including the King Oscar I, had become saturated with Italian landscapes that had been introduced by the foremost Swedish exponent of the classical landscape, Gustaf Wilhelm Palm (1810–90).[114] In addition, patriotic feelings had generated a taste for national landscapes in the aftermath of the revolutionary years in Europe. In this context, the works of Norwegian artists, such as Gude and Tidemand, represented something new and inspiring, convincing even the Swedish king that it was necessary to travel to Düsseldorf to take up art studies there, and to start depicting Swedish nature and landscape from a new point of view. For this study, I have researched Swedish artists' works in the collections of art museums in Malmö, Gothenburg and Stockholm.[115]

One of the artists inspired by the Nordic exhibition in 1850 was Marcus Larson (1825–64) who moved to Düsseldorf in 1852. Larson, however, did not study at the Kunstakademie, but stayed in Düsseldorf for three years, after which he continued on to Paris. Larson found inspiration in Andreas Achenbach's landscapes, but was also fascinated by earlier seventeenth-century Dutch art and loved dramatic effects. His paintings, which belong to the collections of Gothenburg Art Museum and Nationalmuseum in Stockholm, mostly represent waterfalls set in dramatic light, with puffy cumulus and thunderclouds, but there are also some peaceful land-

111 Kragh 2013, 153.

112 Eckersberg's theory of the perspective was indebted to Ursin's ideas of the geometrical relations of the perspective. Gunnarsson 1989, 108; Kragh 2013, 153.

113 Altogether 32 artists attended Ørstedt's lectures in 1824–25. Later in 1848–49, Ørstedt continued with his lectures and talked about natural science and its relation to aesthetics, including the theory of optics, colour theory and the anatomical relation of the eye. Kragh 2013, 153, 162.

114 Palm stayed in Rome (1841–51). Gunnarsson 1998, 70.

115 In Sweden, I have visited the collections of Malmö Art Museum, Gothenburg Art Museum and the Nationalmuseum in Stockholm. In addition, I have visited the archives of the National Library of Sweden and the Royal Swedish Academy of Sciences in Stockholm to research artists' works and letters.

scapes depicting forest scenery with a more naturalistic approach.[116] For Larson, nature represented chaotic untamed forces, and he painted dramatic views of stormy seas and shipwrecks in a similar spirit to Achenbach. In addition, Larson had a special interest in geological forms and included rough stone surfaces and rocks in his landscapes.[117]

After Larson, there were a few more Swedish landscapists who came into contact with the local naturalism and learned to make studies directly from nature. Axel Nordgren (1828–88), who was awarded a grant by the Crown Prince Charles XV, came to Düsseldorf in 1851 and studied under Gude. Following Gude's example, Nordgren painted Swedish inland landscapes with a geographical and geological precision.[118] In comparison, Edvard Bergh (1828–80), who visited the city in 1850 and 1854, became fascinated by a more nationalistic approach to landscape.[119] Later visitors to the city, Alfred Wahlberg (1834–1906) and Gustaf Rydberg (1835–1933), who stayed in Düsseldorf in 1857–59 and 1859–64 respectively, were interested in celestial and meteorological phenomena, painting several studies of clouds, but they also made sketches of trees, stones and rocks in the same spirit as the other landscapists in Düsseldorf.[120] All these artists thirsted for a new type of Nordic landscape.[121] The Swedes studied landscape painting in Düsseldorf mainly in the 1850s and 60s and gathered there around Gude and Andreas Achenbach. But in the 1860s the attitudes towards Prussia changed due to the political situation, and the Swedish King Charles XV, who is said to have disliked Bismarck, recommended, for instance, that Wahlberg continue his studies Paris instead of Düsseldorf. It was first the war between Prussia and Denmark in 1864 and later the war between Germany and France in 1870–71 that adversely affected the popularity of Düsseldorf in Sweden too. After that only a few Swedish artists studied there, although some stayed for good, such as Nordgren and August Jernberg (1826–96).[122] Generally, the length of the period during which the Swedes studied in Düsseldorf was rather short – if compared with the Norwegians and the Finns – being about 14 years. As a conclusion, we can say that the relationship between Düsseldorf and the different Nordic countries varied. On the whole, the influence of Düsseldorf and its art academy was greater in Norway and Finland, whereas in Denmark and Sweden it had less impact as they had their own art academies and also because of the political situation in the 1860s and 1870s.

116 See, for instance, *Woodland Pool in Sunshine* (1853), GKM 0440.

117 See *Stony Forest* (1853), No. NM 4405 and *Swedish Lake* (1853), Study, NM 3353; see also footnote 610 in this study concerning Larson and his use of photographs.

118 See, for instance, *Motif from Husqvarna*, undated, NM 4157.

119 For Bergh, see, for instance, *View of Ulriksdahl from the Southeast* (1862), NM 4752 and *In the Forest* (1868), NM 1054.

120 For Wahlberg, see, for instance, *Swedish Landscape. Motif from Kolmården* (1866), NM 1026. For Rydberg, see, for instance, *Spring in Skåne* (1868), NM 1059, and especially Rydberg's cloud studies and 27 sketchbooks which belong to the collections of Malmö Art Museum.

121 Loos 1945, 22.

122 See Loos 1945, Lindwall 1976, Bengtsson 1997.

THE STRUCTURE OF THIS STUDY

In addition to the introduction, this study is divided into two major parts which are subdivided into four extensive chapters. The first part 'Discovering Nature' provides the theoretical background, starting with the relevant discoveries made in the natural sciences from the late eighteenth century. Continuing, it describes certain aspects of landscape painting in Dresden that proved to be relevant for landscape painting in Düsseldorf. The second part, 'From Düsseldorf to the World', introduces landscape painting in Düsseldorf with its different variations, as well as its meaning for Finnish landscape painting.

Chapter two discusses the development of geology and geography, meteorology and botany in general, highlighting major steps taken from the end of the eighteenth century until the 1860s. As Alexander von Humboldt acts as a connecting figure between the scientific world and landscape painting, his career and ideas will be stressed in particular. Furthermore, the major developments in the field of natural sciences in Finland and Norway will be outlined in order to create a bigger picture of the temporal context.

Chapter three opens with a brief introduction to the history of outdoor painting. Since travelling and outdoor painting are closely related, it explores further the earlier tradition of artistic expeditions by discussing picturesque travelling and illustrated travel accounts. Moreover, it examines not only earlier landscape aesthetics in Germany, but also the basic features of Humboldt's landscape aesthetics. In this context, the history of the aesthetic concepts of the *picturesque*, the *sublime* and the *beautiful*, as presented in Britain, will be covered briefly. Also Humboldt's role as a source of inspiration for artists to travel and participate in expeditions to faraway places will be examined. As to the discovery of the Norwegian mountains as an artistic motif, it is important to discuss what had happened in Dresden before Düsseldorf, in fact, and in this context the role of Carl Gustav Carus as a link between art and the natural sciences has to be considered.

Chapter four is devoted to the meaning of Düsseldorf as an art scene as well as its tradition of landscape painting. It presents the most important features of Schirmer and Lessing's outdoor painting as indicated by their artworks. By focusing on popular motifs and places, both in

Düsseldorf and elsewhere in Germany, artworks by Finnish and Norwegian artists are combined with the œuvre of Schirmer and Lessing, and thus with the prevailing trends in the city.

Chapter five focuses on Finnish landscapes composed by Finnish artists, bringing together the results of the earlier chapters. It illustrates how these artists concentrated on certain themes while walking and painting in Finland, but at the same time drawing on the influences from Germany. Here the artworks are also combined with the ideas of Topelius, whose impact on the selection of motifs cannot be underestimated.

In my pursuit of Humboldt's ideas I have familiarised myself with his writings in their original language where possible. For direct quotations from his work, *Cosmos,* I have used the translation by E. C. Otté from the year 1852. The original quotations in German are given in the footnotes. In order to have some idea of the artists' thinking, I have also read a number of their letters in their original language. The quotations from these letters I have translated myself, but the original texts are provided in the footnotes. As for Carl Gustav Carus and his *Neun Briefe über Landschaftsmalerei, geschrieben in den Jahren 1815–1824,* I have used the English translation by David Britt published by the Getty Research Institute in 2002.

PART I

DISCOVERING NATURE

2
TRACING THE DEVELOPMENTS OF NATURAL HISTORY AND THE NATURAL SCIENCES

In the course of the nineteenth century, new methods of empirical research and analysis were introduced, which included the study of the physical structures and processes of the planet based on empirical observation using scientific instruments, as well as quantification. Natural history evolved into different fields of the natural sciences. At the same time, science became more and more involved with industry and government, which led to the expansion and specialisation of the scientific community. In order to understand how the change from natural history into different and more specific fields of the natural sciences took place at the turn of the eighteenth and nineteenth centuries and how this development continued, this chapter explores the most important discoveries in the fields of geology, geography, botany and meteorology relating to the point of view of this study. What is important here is the historio-social and temporal context, and how the general awareness of ideas concerning nature and developments related to the history of nature changed. These changes created a mental and intellectual background for society. Therefore I believe that artists were aware of the developments in the natural sciences – just as they are today – since the topics under discussion were groundbreaking and were also discussed in the newspapers. Because it is difficult to know what artists' intentions were in the nineteenth century, I aim to examine and discuss their art using contemporary points of view.

In this context, the significant role that Alexander von Humboldt played in Germany cannot be over-emphasised, although most of the discoveries or inventions in the nineteenth century, were not made by a single person only. Instead, they are usually the results of work accomplished in different countries by various naturalists or scientists over a longer period of time.[123] Actually, Germany became the leading country in the natural sciences in the course of the nineteenth century, partly due to the fame of Humboldt's publications and the impact they had. Humboldt's life work illuminates all the areas under discussion and also provides us with suitable tools to examine the artworks. Although there is no written evidence that any of the artists examined here would have read Humboldt's works, his ideas and theories were widely known, and they bear such obvious similarities to the landscape paintings concerned that we can at least assume that these artists were aware of his publications.[124] Moreover, the Austrian artist Eugène von Guérard, who was Hans Gude's colleague and studied in Düsseldorf in 1840–52, set out on an expedition to Australia, where he participated in scientific expeditions. It is also very likely that von Guérard's artist colleagues in Düsseldorf must have known about his undertakings. In addition, Humboldt's Finnish contemporary Zacharias Topelius believed that geography and landscape painting were closely related.[125] That said, it is crucial to discuss the developments on a more general level, too.

FROM NATURAL HISTORY TO THE NATURAL SCIENCES

The notion of positivistic science was articulated by the French philosopher Auguste Comte (1798–1857) in his *Cours de philosophie positive* (*Positive Philosophy*, initiated in 1826, published 1830–42). According to Comte, knowledge forms the most reliable basis we have for action in the world, and scientific researchers tried to discover facts or laws of features in the eighteenth century, but the term 'science', as we understand it nowadays, achieved its modern meaning only in the nineteenth century. It was the British scientist and philosopher William Whewell (1794–1866) who launched the concept in 1840.[126] Before that time, people dealing with scientific questions were called, to a great extent, philosophers or naturalists, as was for instance Alexander von Humboldt.[127] In this study, the term 'science' is used to refer both to the earlier natural history, which concerns the multidisciplinary description of nature before the nineteenth century,

123 For this see, Latour 1988 [1984], 15. As Latour has stated, 'To convince someone that an experiment has succeeded, that a technique is effective, that a proof is truly decisive, there must be more than one actor.'

124 We have no record of books read at the *Kunstakademie* before 1872, because the building burnt down in March 1872. There is a drawing by Theodor von Eckenbrecher illustrating the fire. Mai 1979, 36; for the illustration, see Blank 1965, 24.

125 Tiitta 1994, 307.

126 Bowler & Morus 2005, 4. For the concept of science, see also Klonk 1996, 154, footnote 1.

127 Today historians of science would not necessarily talk about the Scientific Revolution in the seventeenth century nor use the term 'science' in this context. In fact, natural philosophers, as they called themselves, and other seventeenth-century men of science, participated in activities that do not all correspond with our modern comprehension and notions of science. Bowler & Morus 2005, 24.

and to its development into the different fields of the natural sciences; that is to say, meteorology, geology, geography and botany.[128] Due to the vagueness of this development, however, it is difficult to make a clear distinction between, for example, geology and geography. Therefore, both concepts are used, and sometimes they overlap, especially at the turn of centuries. It is also noteworthy that scientists started organising and establishing different societies in order to promote the status of science during the nineteenth century.[129] The separation of different fields of science took place gradually, and the scientists, in fact, worked in several fields, as did Humboldt.

In terms of producing knowledge today, we are inclined to think that art invents and science discovers; hence art is bound with imagination, whereas science deals with facts. The separation of art and science into two distinctive fields took place only in the late nineteenth century, but a lively discussion developed around the question of whether art had distinguishable goals from science even earlier in the century.[130] In the conduct of natural sciences, the production of knowledge was confined to depicting objects and connected with the idea of objectivity. A good example of this is presented by Peter Galison who states how scientists aimed at rendering the natural world 'objectively' when representing the basic species of an investigation in the nineteenth century. This search for a 'true' picture of nature, or pictorial objectivity, was not a new phenomenon in the nineteenth century. At the turn of the eighteenth and nineteenth centuries, there had been a struggle to reach an inner or hidden reality, the ideal, which represented the true hidden picture behind the visible in the sense of the Goethean *Urpflanze*.[131] Galison refers to a *metaphysical image* that existed in the seventeenth and eighteenth centuries and that was held to be 'true to nature' as it aimed at revealing the essence behind the appearance. The metaphysical image was produced by a genius. In the nineteenth century, this was replaced by *a mechanical image*, which was produced by a scientist, and was thus considered to represent 'objectivity'. There was a third shift in this development at the beginning of the twentieth century, when the mechanical image changed into the *interpreted image*, which was bound up with judgement. The interpreted image is produced by self-confident experts with a trained eye.[132]

There was, nonetheless, a change in the pictorial representations of nature and the persona of the natural philosopher around 1830. Instead

128 Bowler and Morus state that most historians of science find it difficult to accept that there would have existed one, unique method of science. Bowler & Morus 2005, 24.

129 Bowler 1997 [1992], 180, 18; Olson 2008, 1.

130 Jones & Galison 1998, 3.

131 Galison 1998, 328; For the Goethean *Urpflanze*, see Waenerberg 1992, 28–34.

132 Galison 1998, 329, 353.

of idealising nature or revealing the metaphysical truth with pictures, the new scientists started to record natural objects mechanically. This objectivity had nothing to do with the truth, but rather with a machine idea, where the machine served as a neutral and transparent operator. Thus objectivity replaced the earlier values of the subjective, interpretive and artistic, and as a consequence, the self-abnegating scientist using automatic registration with instruments took over. This was followed by the use of photography at the end of the nineteenth and at the beginning of the twentieth centuries, whereby atlas-makers started to produce systematic images of nature.[133] In comparison, this is something that Timothy F. Mitchell connects with the ever-growing knowledge of geology and correspondingly as a turn towards naturalism.[134] The period from the 1850s until the end of the century was also a time when building scientific institutions reached its peak. At the same time, the persona of the scientist was changing, and the values associated with science were accuracy, precision and self-abnegation. In comparison to the eighteenth-century genius and the nineteenth-century lay ascetic, the scientist in the twentieth century was considered an expert with an experienced eye who could recognise patterns where an amateur saw nothing. Galison points out, however, that this objective image was never a mere synonym for truth, certainty or consensus, and claims that when scientists started to depict what was actually seen, it meant sacrificing the universalism and truth of the metaphysical image.[135]

In *The Fontana History of the Environmental Sciences* (1992), the British science historian Peter J. Bowler alludes to the emergence of natural history as one of the essential turning points in the history of environmental sciences. Correspondingly, it was important that people became aware of the fact that Earth was not static, but that dynamic changes had taken place and shaped both its surface and its structure. As a consequence, Earth had a history of its own, which defined its contemporary structure.[136] This awareness was created through discussions concerning the age of our planet. In fact, in just a few decades, the age of Earth expanded from 6000 years to tens of millions of years. The same discussions also challenged the role of God as the creator of Earth and the universe.[137] Bowler states how natural history and geology were regarded as 'soft sciences', in that natural history was more concerned with collecting facts rather than explaining observations. After all, the transition from natural history into biology and geology was a complicated process.[138] Even if some developments in

133 Galison 1998, 328–329.
134 Mitchell 1993, 190.
135 Galison 1998, 337, 355.
136 Bowler 1997 [1992], 19.
137 Bowler & Morus 2005, 103.
138 Bowler 1997 [1992], 18.

science education had already occurred in the eighteenth century, major progress was made in the following century.

During the early nineteenth century, a radically different understanding of the nature of science emerged as part of a significant movement in the natural sciences in the German-speaking lands. *Naturphilosophie* tried to understand nature as a whole, and assumed that humans do not derive scientific laws from nature, but impose them on it.[139] In a very different way to how we understand science today, *Naturphilosophie* assumed that the considerations of science were subjective. Science, moreover, had to be fully grounded in adequate metaphysical concepts. The tendencies connected with *Naturphilosophie*, however, were transformed and then abandoned from the 1830s onwards, and science became more and more connected with a materialistic idea of nature that also served the needs and purposes of industrialisation.[140] This new materialism was favoured by those who regarded the search for information and knowledge as the collection of facts from the 'objective' outer world, which existed independently of the human mind.[141] In this development, the role of experience and especially sensory experience gained more and more ground. As a consequence, the empirical approach of the time, based on scientific methods in which observation and experiments formed the core of science, was widely applied in the natural sciences, where the role of the observer was emphasised. I would suggest that we can see this development also in the arts, and hence in landscape painting.

THE GOLDEN AGE OF GEOLOGY: NEPTUNISM AND VULCANISM

In the eighteenth century, important developments took place as some of the modern sciences, such as geology and geography, started to emerge from traditional natural history. However, it was difficult to differentiate one field from another, and some fields that we regard as clearly separate and independent today might have been treated as representing only different features of the same issue.[142] Consequently, the boundaries between different branches of science were not very distinct, and it was still common for scientists to work in several fields; for instance, both Alexander von Humboldt and Charles Darwin took a great interest in geology, although it was not their primary engagement. At the end of the century, there was enough

139 Bowler & Morus 2005, 5; Olson 2008, 87–88.

140 One of the forces that contributed to this change was Comte's positivism. Bowler 1997 [1992], 182; Tiitta 1994, 21; Bowler & Morus 2005, 95–96; Olson 2008, 87–88.

141 Bowler 1997 [1992], 182.

142 Bowler 1997 [1992], 101.

information available about the history of Earth to establish a system based on field investigation, and different kinds of findings, such as fossils, started to gain importance in theoretical speculations.[143] Besides this, a battle was being waged between two competing hypotheses about how Earth's surface was formed: Neptunism and Plutonism, later known as Vulcanism.

Before 1770, Earth was considered static and fairly young.[144] The German mineralogist, Abraham Gottlob Werner (1749–1817), who was teaching at the mining school in Freiberg, supported Neptunism, which posited that Earth's crust had been formed in stages out of a primordial ocean, so Earth was originally covered by water, and each stage was represented by a distinct rock formation. Neptunism was supported by so-called catastrophists, many of whom believed that the biblical flood was a geological fact that could be proved.[145] In the nineteenth century, Neptunism was replaced by Vulcanism (or Plutonism) as a dominant intellectual theory. According to this theory, the rocks forming Earth were formed in fire by volcanic activity which caused the rising of new land masses. In the 1830s, the English geologist Charles Lyell (1797–1875) published his *Principles of Geology* (1830–33), in which he introduced the concept of nature's uniformity. According to this methodology – that is uniformitarianism, which Lyell promoted together with his predecessor James Hutton (1726–97) – Earth's surface was in a state of constant transformation caused by volcanoes, earthquakes and erosion. The supporters of this theory were called uniformitarians.[146] Hutton presented his theory of Earth to the Royal Society of Edinburgh in 1785, but the two-volume complete version, *The Theory of Earth,* was not published until 1795. Here he put forward the provocative argument that the history of Earth could be found in natural history, and he ignored the biblical account of the Creation. Hutton focused on the processes forming Earth's crust, and for him it was enough that God had created a world which kept maintaining itself forever.[147] As a matter of fact, he argued that there was no evidence to support the Creation account at all, and therefore the problem concerning the origin of the world could not be solved with the help of geology.[148] Thus Hutton and Lyell's own religious values had an impact on their scientific thinking although their ideas remained mostly within the English-speaking world, and the timescale the geologists worked with at the end of the nineteenth century was still much shorter than it is today. Nonetheless, Lyell's books were widely read, just as Humboldt's *Cosmos*, and these two scientists actually corresponded with each other actively, as well as meeting person-

143 Before the seventeenth century, fossils were believed to be remains of some animals that had drowned in the Flood. Edelman 1990, 49, 140; Bowler 1997 [1992], 101.

144 Mitchell 1993, 8.

145 Bowler & Morus 2005, 104.

146 William Whewell used the term 'uniformitarianism' first in 1832. Lyell developed it from Hutton's gradualism. Bowler 1997 [1992], 212; Mitchell 1993, 181; Bowler & Morus 2005, 104, 122.

147 Klonk 1996, 77; Bowler & Morus 2005, 121.

148 Edelman 1990, 151.

ally several times in order to exchange ideas and opinions on scientific issues.[149] Lyell's ideas changed the direction of geology, but Alexander von Humboldt gave his ideas common currency.[150]

During the Romantic era, the outline of Earth's history was written anew and the forces of nature were re-evaluated. Along with geography, geology started to develop as a separate discipline. Actually, the nineteenth century has been referred to as the heroic era of geology. It was a time when not only the timescale of Earth's history expanded enormously, but also Earth's crust became an object of scientific study.[151] According to geognosy[152], for instance, Earth's history was displayed on its surface, and it was visible in the different mountain types that demonstrated historical changes.[153] At this time, science and the arts interacted, and many scientists were inspired by Romanticism. They wanted to go beyond the observation of details and thus create theories describing the universe as one harmonious entity.[154] Mountains, trees, sky and clouds in paintings were no longer seen merely as symbols or potential allegories. Timothy F. Mitchell indicates how the 'Golden Age' of geology took place at the same time as the development of Romantic sensibilities, which concerns the half-century around 1780–1830. In addition, Mitchell states that natural phenomena were believed to have had a direct impact on cultural history, and how new ideas, formed by 1840, conveyed new images and meanings to landscape painting, and by mid-century, a fairly radical new landscape imagery had been formed.[155] At this point, Werner's geognosy had been replaced by new ideas, and the sense of geological time simply expanded vastly. The reason for this change in landscape painting, as stated by Mitchell, was the discovery of geological time.[156] Mitchell, moreover, argues that the abandonment of Neptunism led to a new form of landscape art. He regards the year 1830 as a milestone prior to which Neptunism represented the special ideas that informed the artworks. Through the change of paradigm into Vulcanism and uniformitarianism, the importance of rain, wind and water as decisive factors in the transformation of Earth's crust, causing erosion, became evident. Also the idea of continental drift was introduced.[157] This change of paradigm produced new motifs in artworks: artists started to depict the manifestations of the long history of the planet by painting boulders, sedimentary rocks, volcanoes etc. This also caused a shift in the history of landscape in Germany towards naturalism. Instead of idealisation and abstraction, the views depicted were closer to everyday experiences.[158] Besides, a similar de-

149 Bowler & Morus 2005, 104; Lubowski-Jahn 2011, 325.

150 Humboldt compared different mountain forms in different parts of the planet and found out that the outline of a mountain was based on how the mountain had emerged. If there was a similar emergence process, the mountains looked similar. Löschner 1982, 245.

151 Bowler 1997 [1992], 180.

152 According to Collins English Dictionary, geognosy is the study of the origin and distribution of minerals and rocks in the earth's crust. It was superseded generally by the term geology.

153 Mitchell 1993, 109, 179.

154 Bowler 1997 [1992], 189.

155 Mitchell 1993, 2, 8.

156 Mitchell 1993, 180.

157 The change of paradigm did not happen overnight, nor did everybody approve of it. For example, Goethe and Carus did not accept the new paradigm, but held on to Neptunism. Mitchell 1993, 7, 181.

158 Mitchell 1993, 190.

velopment took place in the United States where enthusiasm for geology became widespread, and artists were among the first that were attracted to geology, as the American scholar Rebecca Bedell has written.[159] To my mind, the discovery of geological time and its impact on the arts explains the great number of sketches and studies depicting similar motifs of stones, boulders and rocks over and over again in the oeuvre of landscapists both in Dresden and in Düsseldorf, and likewise it can be seen in the production of Werner Holmberg and Magnus von Wright.

FROM DESCRIPTIVE GEOGRAPHY TO MODERN GEOGRAPHY

Since geography and geology had not yet been separated as disciplines, it is essential to discuss the main steps of development of geography too. Up until 1800, geography was basically a description of Earth, its physical objects and phenomena, using lists and classification which was the usual procedure in the natural history of the time. The American scholar Chenxi Tang describes the emergence of modern geography in *The Geographic Imagination of Modernity* (2008), and states how geography as a science became remarkably empirical in spirit during the era of Humboldt and Ritter. It used causal explanation and aimed at discovering the laws governing terrestrial nature.[160] The classical period of geography is usually placed between the years 1799 and 1859. The former designates the year when Alexander von Humboldt embarked on his expedition to the Americas, and the latter the year in which both Humboldt and Carl Ritter died.[161] Allan Tiitta claims it was obvious that Kant's ideas about geography influenced both Humboldt and Ritter. Geography was empirical science with a territorial point of view and thus related to space. In addition, it contained all empirical knowledge of the physical world. In comparison, history was related to time.[162] Before this, however, the approach to geography and its relation to Earth had already changed during the eighteenth century. At this stage, a distinction between subjective and objective geography had been introduced. Subjective geography was believed to apply correct information about Earth's surface in every age, whereas objective geography was expected to describe Earth as it actually was.[163] As many scholars have shown before, Jean-Jacques Rousseau (1712–78) had started to redefine the relationship between man and Earth. For him, it was essential that the subject conceived geographical knowledge of one's surroundings first,

159 Bedell 2001, 3–15 passim.

160 The concept of *Erdbeschreibung*, which referred to descriptive geography, was superseded completely by *Erdkunde* after the publication of Ritter's *Die Erdkunde* in 1817. Tang 2008, 25–26.

161 Their works founded the classical paradigm of geographic science which survived until the second half of the twentieth century. Tang 2008, 25.

162 Tiitta 1994, 17.

163 Tang 2008, 37.

that is home and homeland, and from there one could proceed farther off. Johann Heinrich Pestalozzi (1746–1827) shared Rousseau's empiricist ideas and developed them further. According to Pestalozzi, geographical knowledge could be gained through a three-stage operation: first by surveying, then by comparing and finally generalising form, number and language. Following Pestalozzi's ideas, Ritter applied this three-stage method to his comparative geography. For him, the first step consisted of the learning of particularities, which meant exploring the basic spatial elements of one's surroundings and faraway places. The following step dealt with composing a regional picture, which included all the characteristics of it, and with comparing it to another region. Finally, all these regional descriptions formed a general system of scientific knowledge about Earth. In his method, Ritter stressed the significance of measuring the heights and depths of Earth's surfaces in relation to sea level. Also the classification of its forms due to important characteristics, as well as collecting the observations from people of different times and places, played a major role.[164]

Tang talks about geographical imagination and combines it with a restructuring of the spatial order of the European continent around 1800. This was the time of nation building and establishing modern nation states. In this development, Johann Gottfried Herder focused upon language and cultural roots, looking to folk songs, mythologies and fairy tales. When Rousseau emphasised the role of subjective experience as the basis for human knowledge, Herder highlighted the part of the oral traditions of people. Herder saw a new geography that would reveal the ways in which terrestrial space, that is to say land, water, mountains, valleys and so on, related to customs, religions and forms of government, as well as the arts and sciences of individual peoples. Ritter shared both Rousseau's ideals as well as Herder's regarding the subjectivisation and reorientation of geography, but his goal was to turn geography into a science.[165]

ALEXANDER VON HUMBOLDT AND HIS VIEWS OF NATURE

Being one of the most famous naturalists of the century, Alexander von Humboldt's influence reached far beyond Germany and France. His work was well known and greatly admired in the Nordic countries, as well as in the USA and Britain. But what was so special about him? Although we do not know of any specific theory or doctrine that was named after him,

164 Tang 2008, 42–45.
165 Tang 2008, 47, 49, 52.

Humboldt's fame as a naturalist at the time can be compared to that of Albert Einstein in the following century. His reputation also reached Finland at an early stage. In comparison to his predecessors, Humboldt's view of nature was more specific and detailed, as he could travel widely and make numerous observations himself.[166] Humboldt was involved in all the fields of the natural sciences covered for this study – geography, geology, meteorology and botany – and his scientific goal was to make the world better known and more easily comprehensible. Instead of working as a civil servant in some Prussian administrative office, he aspired to creating a universal theory for the description of the world, which he called *physique du monde*. This theory included analyses of rocks and minerals, as well as a survey of flora and fauna.[167] I find Humboldt's ideas concerning nature and landscape painting very useful for this study and geology and geography are of special interest. Besides, in Finland his ideas have not been applied to landscape painting, and to Düsseldorf landscape painting in particular, although several German and international scholars have explored his theories in relation to landscape painting. Since Humboldt produced his observations in writing, paying a lot of attention to landscape aesthetics, his ideas have been studied not only as part of scientific discourse, but also as part of literature. Humboldt clearly adopted a literary form for his observations and used very descriptive language. Similarly, the Brazilian art historian Claudia Mattos connects Humboldt with the literary tradition of 'Ekphrasis' and discusses Humboldt's close relationship with Goethe, who had influenced Humboldt in many ways, not least in his aesthetic views.[168] Therefore Humboldt's relationship with Goethe not only connects him with literature, but also with landscape painting.

Humboldt based his theories on empirical observation and one of the ways to collect and document the data were the illustrations of nature, which he also used as supporting arguments. In order to receive the required data for his measurements, Humboldt wanted to make a trip around the world. Thus he made an expedition to Central and South America 1799–1804 together with the French botanist Aimé Bonpland (1773–1858), whom he had met in Paris in 1798.[169] On his expedition, Humboldt's intention was to investigate the geological structure of the continent. When undertaking research work, Humboldt started looking for the characteristics of nature in the physiognomy of a region. For instance, by comparing different mountain forms in different parts of the world, he had

166 Glacken 1967, 543.
167 Richter 2009, 46.
168 Mattos 2004, 142.
169 Richter 2009, 46, 58.

realised the importance of inorganic nature to the physiognomy of a landscape. He had also noticed that mountain forms were similar everywhere if the mountains had emerged in the same way.[170] In addition, he discovered that the same kinds of catastrophes had taken place around the globe, as he found that the granites, mica schists and gypsum of the Peruvian chain had the same composition and were originated in the same epoch as the Swiss Alps. When compiling his theory of the formation of the Andes, Humboldt paid attention to the form and arrangement of the mountains, and it was this physiognomy, the form of the mountains projected against the sky, that he tried to represent in a series of drawings.[171] Humboldt's work contributed to the understanding of the planet and its history, which by 1840 had expanded almost beyond imagining, and the most important concept discussed by the mid-nineteenth century was geological time.[172]

As a result of his expedition, Humboldt published a collection of essays called *Ansichten der Natur* (*Views of Nature*, 1808). *Views of Nature* offered a synthetic view of the multiple local phenomena that Humboldt had carefully analysed. He included humans in his theory, since he believed that that natural formations of each region moulded the character of its inhabitants.

> *The azure of the sky, the form of the clouds, the vapoury mist resting in the distance, the luxuriant development of the plants, the beauty of the foliage and the outline of the mountains, are the elements which determine the total impression produced by the aspect of any particular region.*[173]

Humboldt called this synthetic view a total impression, *Totaleindruck*.[174] As Goethe's disciple, Humboldt actually adopted the concept of 'total impression of landscape' and the 'organic wholeness of landscape' from Goethe, and he tried to explain natural phenomena without using religious dogma; in other words, he did not try to explain nature as God's creation, which was common in his time, but instead drew on to empirical science.[175] For Goethe, science concerned knowledge about form, and he had developed a method of comparative morphology. Sight thus played an essential role: in order to detect a specific order of a phenomenon, one should look for it in the physiognomy of a phenomenon itself.[176] Humboldt also used the expression 'picture of nature' or 'paintings of nature',

170 Löschner 1982, 245.
171 Stafford 1984, 93.
172 Wagner 1989, 153.
173 *[Was der Maler mit den Ausdrücken: Schweizer Natur, italienischer Himmel bezeichnet, gründet sich auf das dunkle Gefühl dieses lokalen Naturcharakters.] Himmelsbläue, Wolkengestaltung, Duft, der auf Ferne ruht, Saftfülle der Kräuter, Glanz des Laubes, Umriß der Berge sind die Elemente, welche den Totaleindruck einer Gegend bestimmen*. Humboldt 2004 [1845–1862], 233; Humboldt 1852, 97.
174 See e.g. Mattos 2004, 141.
175 Bowler 1997 [1992], 192.
176 Mattos 2004, 146

Naturgemälde, to describe all the relevant factors in terrestrial space, including vegetation, animal life, geognostic conditions, agriculture, and temperature, as well as other aspects of atmosphere. This *Naturgemälde* represented a synthesis of his experience and it appealed to the inner sensibilities of the audience. This is also an idea he adopted originally from Goethe.[177] In fact, Humboldt had clear views on what he believed to be the essential features of the landscape, and he combined these ideas with his study of nature. While studying nature, he realised that the objects in nature were not static, but constantly changing.[178]

Humboldt popularised natural history through his series of sixteen 'Cosmos lectures' in Berlin in the years 1827–28. Later, these lectures formed the basis for his main scientific work, which he started writing in 1833, but to which he would give the final touch only shortly before his death in 1859.[179] Humboldt's *Cosmos: A Sketch of a Physical Description of the Universe* was actually one of the most popular books in the nineteenth century, but after his death his fame started to diminish towards the end of the century.[180] In *Cosmos*, Humboldt used a comparative analysis for the study of natural phenomena.[181] In the first volume, Humboldt stressed the significance of objective observation for the scientific delineation of nature. But it is in the second volume of *Cosmos* that he proceeded 'from the sphere of objects to that of sensations',[182] and thus addressed artists more directly by writing about the importance of landscape poetry and landscape painting for a naturalist's work when considering 'the impressions reflected by the external senses on the feelings, and on the poetic imagination of [the] mankind'.[183] It is also noteworthy that Humboldt's *Cosmos*, together with his lectures, had a great impact on the introduction of empirical natural sciences. Indeed, he wanted to disengage separate fields of science from the domain of speculative nature philosophy, *Naturphilosophie*, and this was one reason why *Naturphilosophie* lost its influence and was replaced by an empirical approach in the natural sciences in Germany.[184] This is also a reason why this study does not focus on the aspects and ideas of *Naturphilosophie*, but rather on Humboldt's ideas.

Although a naturalist, Humboldt wrote about the fine arts too, and landscape painting in particular, which he regarded as an essential aid to his research work. Humboldt, in fact, not only had knowledge of different graphic techniques, but also supervised the work of about 50 artists, who copied field sketches.[185] He described landscape painting as the

177 Dettelbach 2001, 19; see also Mattos 2004, 147.
178 König 1997, 194.
179 Richter 2009, 117.
180 Mitchell 1993, 8; Bowler & Morus 2005, 381.
181 König 1997, 195.
182 *Wir treten aus dem Kreise der Objecte in den Kreis der Empfindungen*. Humboldt 2004 [1845–1862], 189; Humboldt 1852, 19.
183 [Jetzt betrachten] *wir den Reflex des durch die äußeren Sinne empfangenen Bildes auf das Gefühl und die dichterisch gestimmte Einbildungskraft*. Humboldt 2004 [1845–1862], 189; Humboldt 1852, 19.
184 Tiitta 1994, 21; König 1997, 194.
185 Stafford 1984, 93.

'representation of the physiognomy and character of different portions of Earth' and how 'it increases the desire for the prosecution of distant travels'.[186] The Romantic movement in the arts around 1800 had impressed Humboldt and, through his connections with Goethe, Humboldt became interested in landscape aesthetics too. In fact, landscape aesthetics played an essential role in the discoveries he made in geography. Humboldt, being dissatisfied with natural history, was convinced that landscape poetry and painting were of fundamental importance for the study of nature. In his *Views of Nature* and especially in the second volume of *Cosmos*, Humboldt wrote about landscape poetry and landscape painting and their relation the observation of nature:

> *The inducements which promote such contemplations of nature are, as I have already remarked, of three different kinds, namely, the aesthetic treatment of nature scenery by animated delineations of animal and vegetable forms, constituting a very recent branch of literature; landscape painting, especially where it has caught the characteristic features of the animal and vegetable world, and the more widely-diffused cultivation of tropical floras, and the more strongly contrasting opposition of exotic and indigenous forms.*[187]

As we can see here, Humboldt talks not only about observing nature, but also about the contemplation of nature, stressing the aesthetic treatment of it. While doing so, he does not forget the scientific approach, but pays attention to characteristic features, as well as contrasting oppositions. As such, Humboldt not only described nature and Earth, but emphasised the composition of this picture of nature and its originality. Along with Goethe, he also described nature as unity in diversity and stated that nature had to be felt. Like Goethe, Humboldt believed that literature and painting helped the scientist to produce this synthetic view, but it was not all literature nor art, but rather the classical landscape painting. Goethe's ideas about landscape painting had been influenced by Jakob Philipp Hackert, whom he had met in 1786 while travelling in Italy.[188] There Goethe had the chance to study Hackert's methods and theoretical concepts in detail. Mattos states how Goethe thought that Hackert could 'extract the ideal element from the real landscape'. This unified the ideal landscape of Italian tradition with the Northern vedutas in Goethe's thinking. Con-

186 […] *die Sehnsucht nach fernen Reisen vermehrt* […] Humboldt 2004 [1845–1862], 225; Humboldt 1852, 83.

187 *Die Anregungsmittel sind, wie wir schon früher bemerkt haben, von dreierlei Art: ästhetische Behandlung von Naturscenen, in belebten Schilderungen der Thier- und Pflanzenwelt, ein sehr moderner Zweig der Litteratur; Landschaftsmalerei, besonders in so fern sie angefangen hat die Physiognomik der Gewächse aufzufassen; mehr verbreitete Cultur von Tropengewächsen und constatierende Zusammenstellung exotischer Formen*. Humboldt 2004 [1845–1862], 189; Humboldt 1852, 19–20.

188 Goethe 2010 [1981, 1786], 136; see also Lorenz 2008, 98.

sequently, Mattos suggests that Humboldt 'inherited' many of Hackert's theoretical principles from Goethe, one of them being the definition of the central elements in a landscape.[189] For Hackert, the vegetation constituted the main element and the study of trees in particular. Humboldt in fact applied these ideas while working together with artists.[190] However, when Hackert talked about three prototypes of tree, Humboldt expanded the number to sixteen.

As such, Humboldt proclaimed a new science in which the study of relationships replaced pure description, and he also believed an artist's task was to express the total impression of landscape as a guideline for a scientist who tries to comprehend the variety of natural relationships contained in landscape.[191] The human being exemplified the highest rank in the organic development process and was hence the centre of nature for Humboldt, as for Goethe.[192] All in all, Goethe was important for Humboldt's intellectual development, and the guiding principle in his study of nature was this *Totaleindruck,* viewing nature as a unified, interconnected whole.[193] This total impression of landscape could not be divided into a subject and an object, and he believed that the best place to achieve such a total impression was in the nature of southern Asia, or on the new continent.[194] In the same spirit, Ritter, Humboldt's friend, colleague and professor at Berlin University, challenged natural scientists to enrich their detailed observations of nature by considering the whole instead of parts.[195]

FROM LINNAEAN BOTANY TO HUMBOLDT'S GEOGRAPHY OF PLANTS

Humboldt's predecessor, the Swedish naturalist Carl Linnaeus (1707–78) belonged to the supporters of physico-theology and believed that his task was to reveal the order of the biblical Creation by reading the signs left by God in nature.[196] In 1735, based on his research work conducted in his botanical garden in Uppsala, Linnaeus published his *Systema Naturae* (System of Nature). Although being a botanist above all, his aim was to create a classification system that included every plant and animal species. Hence, Linnaeus's taxonomic system represents the trend of the eighteenth century to a great extent. In his pursuit, Linnaeus managed to create a system for naming species, the binomial nomenclature, which is still in use today.[197] In this classification system, the particular features of

189 Hackert introduced his ideas in *Principles to learn how to draw landscapes from nature* (1802). Mattos 2004, 143–144, 149–151.

190 For the difference between Hackert and Humboldt, see, for example, Sitt 1995, 11–12.

191 Bowler 1997 [1992], 191.

192 Löschner 1982, 245.

193 Tang 2008, 83–84.

194 König 1997, 196; Granö 1996, 47.

195 Humboldt talked about the unity among complexity: *'Einheit in der Vielheit, Verbindung des Mannigfaltigen in Form und Mischung, Inbegriff der Naturdinge und Naturkräfte als ein lebendiges Ganzes'.* Löschner 1982, 245.

196 Bowler 1997 [1992], 154.

197 Bowler & Morus 2005, 133. There he linked the most closely related species into a genus, which he gave two Latin names. These names are always in italics, and the first is the name of the genus, the second of the individual species.

plants, animals or humans are not as decisive as the common features that relate them to a class. In 1754, he published his *Reflections on the Study of Nature,* which stressed,[198] in the spirit of empiricism, the importance of observation when investigating nature.[199]

Due to its simplicity, Linnaeus's taxonomic system became very popular, especially in the USA. By this time, scientists realised, however, that nature acted in an unpredictable way, and man could not force nature into a predestined order. Thus, the idea of nature being static, as represented by physico-theology, was challenged.[200] Also the theory based on the assumption that all species had one common origin was brought into question when Linnaeus's students and supporters travelled to different parts of the world.[201] These scientists realised that the areas where different species could be encountered did not coincide with the habitat they had expected to find.[202] As a consequence, Linnaeus's taxonomy required readjustment, and it was replaced by a new system which was more applicable.[203] One of the people introducing a new approach that took into account the influence of the environment was Humboldt, who has also been called the father of botanic geography.

For Humboldt as a botanist, his expedition to Central and South America was most influential. On their way, Humboldt and Aimé Bonpland first stopped at the island of Tenerife, where they discovered a large variety of tropical species that were completely new to them. They visited a botanical garden in La Orotava, a town in the northern part of Tenerife, where the plants were organised according to the biological taxonomy invented by Linnaeus. Humboldt was not pleased with the detailed Linnaean taxonomy as he observed vegetation through total impression, *Totaleindruck*.[204] Instead of dealing with the classification of existing plants only, Humboldt was more interested in the aesthetic qualities of the flora. For instance, the appearance of a very thick dracaena tree caught their attention and, besides its aesthetic qualities, Humboldt became fascinated with its history.[205] The rich vegetation on the island made him think of a new classification system, which led him from Linnaeus's botanical system to the physiognomy of plants. Here it was crucial to study the characteristics of the plants out in tropical nature instead of reading the descriptions of botanists or examining the plants in greenhouses.[206]

Humboldt invented the physiognomy of nature, which he formed from the main plant groups. Humboldt's physiognomy of plants follows

198 This was published as a preface to the following text by Linnaeus: *Museum S:Ae R:Ae M:Tis Adolphi Friderici Regis ... in Quo Animalia Rariora Imprimis, et Exotica: Quadrupedia, Aves, Amphibia, Pisces, Insecta, Vermes Describuntur et Determinantur, Latine et Svetice Cum Iconibus ... a Car. Linnaeo, Equ.* Holmiae: E Typographia Regia, 1754. Email from Elaine Charwat on 25 June 2015.

199 Stafford 1984, 55.

200 In geology, for instance, there was evidence of major changes that had taken place on Earth. Bowler 1997 [1992], 167.

201 Bowler 1997 [1992], 165.

202 Bowler 1997 [1992], 164.

203 Bowler 1997 [1992], 157.

204 Humboldt regarded the totality of plants as *Totalitäten* or *lebendige Ganzheiten*. Löschner 1982, 246; Richter 2009, 53.

205 Richter 2009, 54–55.

206 Diener 1999, 148.

Goethe's ideas about morphology as presented in his *Versuch, die Metamorphose der Pflanzen zu erklären* (*Metamorphosis of Plants*, 1790), which was Goethe's first attempt to explain his botanical studies and observations in Weimar and in Italy.[207] Humboldt had learnt about Goethe's ideas while visiting him in 1795 and 1797, and as a result of his visits, Humboldt developed his own theory during the expedition to South America, which he published in his *Views of Nature*.[208] He thus reverted to an old scientific concept, physiognomy (*Physiognomik)*[209], but gave it new meaning by reducing the number of different kinds of plants he had recognised in the tropics to sixteen species that could be found on both continents – Europe and South America. Humboldt, however, expected the number of plants to grow the further they travelled into the interior of South America.[210]

On this trip to the interior, Humboldt was looking for the most expressive forms which were typical of that particular region. He started with palm trees, and continued with bananas, discussing tree stems and forms of leaves, after which he proceeded with cacti and orchids, lianas and aloes, grass and lilies, among others. As plants play such an important role in nature, he came to the conclusion that the distribution of plants was of the utmost significance for the landscape. Also their form and size, as well as the forms of their leaves and inflorescence, were important when evaluating the physiognomy of the landscape.[211] Thus, along with the careful description of the exterior characteristics of plants, it was important to observe the distribution of plants in different climates. As a consequence, Humboldt discovered how the height above sea level affected plants, for example, the passage from trees to grass in the Alps. Hence, he could announce a new science, and the pure description was replaced by the study of relationships.[212]

So Humboldt discovered the effects of elevation on plants, and expressed his ideas in his essay dealing with the geography of the plants (*Essai sur la Géographie des Plantes; Ideen zu einer Geographie der Pflanzen*).[213] For Humboldt, the physiognomy offered a combination of science and art.[214] He pointed out how interesting and instructive an artwork would be in depicting different species, first alone and then contrasted with others.[215] In the case of a forest, for instance, where the vegetation constitutes a mass, it is difficult to make out the outline of different trees, their leaves or stems. Therefore it is the artist's task to make this distinction between different species and their parts. Here he obviously used also Hackert's ideas, as suggested by Mattos.[216]

207 It was the metamorphosis that served as the main principle for Goethe in his morphology. It also played an important role for the Romantics in their understanding of the organic nature of a plant. This idealistic morphology, which considered the external form of a plant as an expression of its inner idea, was already out of date in the mid-nineteenth century though. Waenerberg 1991, 205, 213; For Goethe's morphology, see also Waenerberg 1992, 28–33.

208 Meyer-Abich 2008 [1969], 149.

209 […] *there is also a certain physiognomy of nature exclusively peculiar to each portion of the Earth* […]. […] *so giebt es auch eine gewisse Naturphysiognomie, welche jedem Himmelstrich ausschließlich zu kommt*. Humboldt 1852, 97; Humboldt 2004 [1845–1862], 233.

210 Humboldt 1969 [1849], 77–78; Richter 2009, 76.

211 Humboldt 1969 [1849], 79–86; Löschner 1982, 245.

212 Mitchell 1993, 133–134.

213 Ibid.

214 '*Der Maler (und gerade dem feinen Naturgefühl des Künstlers kommt hier der Anspruch!) unterscheidet in dem Hintergrund einer Landschaft Pinien oder Palmengebüsche von Buchen, nicht aber diese von anderen Laubholzwäldern!*' Humboldt 1969 [1849], 77; Richter 2009, 76.

215 Diener 1999, 148

216 Meyer-Abich 1969, 157; Mattos 2004, 150.

THE BIRTH OF METEOROLOGY: LUKE HOWARD AND HIS TAXONOMY OF CLOUDS

Meteorology as an atmospheric science has its origins in the seventeenth century. In the nineteenth century, it also fascinated Alexander von Humboldt, but it was the English admiral and 'amateur scientist' Luke Howard (1772–1864) who first started to classify clouds into categories. Howard observed the sky over London and then wrote his *Essay on the Modification of Clouds*, which was published in 1803. Howard's classification system and its history are well known today, but an article by A. W. Slater, which is not that well known, reveals how Howard's taxonomy was introduced in Germany. It was the first classification of clouds to be made according to a scientific basis, and Howard listed his four categories of clouds in Latin: *stratus, cumulus, cirrus* and *nimbus*.[217] As a matter of fact, Howard made sketches of clouds together with his friend Silvanus Bevan, and he also painted watercolours of the typical cloud forms. His works directly inspired John Constable, and although being an amateur scientist, Howard contributed a number of papers on meteorological subjects to the Royal Society.[218] Howard's taxonomy is still in use today, but in between, his four categories were extended to twelve. Today the taxonomy, nonetheless, consists of ten categories, but in addition we categorise clouds according to the altitude where they form. Consequently, we talk about low-, middle- and high-level clouds.[219]

We can well assume that artists learned about Howard's taxonomy too at an early stage. Here again it was Goethe who learned of Howard's system from a translation that was published in *Annalen der Physik* (volume 21, 1815).[220] In 1779, while in Switzerland, Goethe had already learnt about the atmospheric measurements of the Swiss geologist Horace Bénédict de Saussure (1740–99), but he could not integrate them into his faculty of the operations of nature.[221] Goethe did not have any scientific knowledge of clouds, but Howard's system offered him a systematic approach to meteorology. Actually, he was so fascinated by Howard's taxonomy that he wrote an essay on cloud forms, *Wolkengestalt nach Howard* (*Cloud formations according to Howard,* 1817), and dedicated a poem to him: *Howards Ehrengedächtnis* (*To the Honoured Memory of Howard*).[222] Goethe, moreover, entered into correspondence with Howard through a friend of his, Johann Christian Hüttner.[223] It was actually the Grand Duke of Saxe-Weimar, Karl August, who introduced Howard's classifications to Goethe, who at the

217 Slater 1972, 119; for the definition of different clouds, see Pretor-Pinney's *Pilvibongarin taskuopas* (2010), 9–27.

218 Slater 1972, 133.

219 The old categories *nimbus* and *fractostratus* are not in use anymore. Oral information given by Elena Saltikoff on 24 January 2011.

220 Slater 1972, 119.

221 Busch 1994, 278.

222 Badt 1960, 18, 23; Slater 1972, 119; Mitchell 1993, 168–169.

223 Slater 1972, 121.

time served as his cultural adviser (Privy Councillor). Being a keen Anglophile, Karl August had read Howard's essay and, as a result, had set up a meteorological observatory on Ettersberg hill, which is the highest place in Weimar. It was followed by a network of stations and observatories, and Goethe was put in charge of these stations.[224] Had Goethe not learnt of Howard's classification, it might have remained the knowledge of a very narrow scientific circle. Moreover, I believe that it was through Goethe's writings that artists might also have learnt about Howard's taxonomy.[225]

In general, Goethe's interest lay in the process of change and transformation in nature. His fascination for meteorology and Howard's taxonomy grew to such an extent that he developed a theory of his own, *Witterungslehre*. Goethe did not content himself with Howard's classification of clouds, but merged it with his *Witterungslehre*, and he even made an extension to it by adding a bank of clouds, *Wolkenwand*, to the category, which is not in use anymore, however. In Goethe's theory, clouds served as phenomena of weather conditions; and yet, he abandoned the phenomenological approach to weather constituted by sensual experience, instead leaning on measurements carried out by a thermometer and barometer.[226] Despite his fascination with Howard's taxonomy, Goethe did not really regard it as a classification system, but rather as a stage in a development process. He considered the change of form as a fundamental factor in which Howard's taxonomy offered a system for naming and categorising different forms. Besides, for Goethe, clouds represented counter-images of the spiritual as people can often detect something familiar in changing cloud forms.[227]

In order to capture different atmospheric changes in nature, it is essential to observe clouds, which are composed of tiny water droplets or ice crystals floating in the air. They appear in a variety of shapes and forms, and yet they are the most ephemeral of natural phenomena, as they change constantly. To record these phenomena, Goethe not only made sketches of clouds himself, but he also employed artists, including Friedrich Preller (1804–78) among others. Prior to Preller, Goethe had asked Caspar David Friedrich to make accurate scientific studies of clouds for him, but Friedrich refused as he regarded clouds rather as atmospheric metaphors of spiritual circumstances.[228] Today we can easily register these changes by taking photographs, but in the nineteenth century it had to be done by making sketches and studies, mostly in watercolour or in oil. Due to the ephemeral nature of these phenomena, outdoor sketching grew in

224 Slater 1972, 120.

225 For Goethe and Luke Howard, see also Pennonen 2012b.

226 Böhme 2005, 25–26.

227 Böhme 2005, 26.

228 Slater 1972, 120; Busch 1994, 279; Neidhardt 2009, 171.

importance, and the number of sketches and studies composed of clouds comprised an essential part of several artists' œuvre.

ORGANISING LANDSCAPE STUDIES AND SCIENTIFIC RESEARCH IN FINLAND

In the nineteenth century, Finland, being 'on the edge of Europe', lagged behind Germany both in arts and in science. In the field of science, Germany occupied a central position, whereas Finland was definitely on the periphery. Since the development of different sciences in Finland took place later than in Germany, it is essential to point out a few important events. After the annexation of Finland by Russia in 1809, the capital was relocated from Turku to Helsinki in 1812. Fifteen years later, in 1827, a great fire destroyed most of the city of Turku, after which Tsar Nicholas I decided to move the university, originally the Royal Academy of Turku, founded in 1640, to the new capital. The university was renamed after Alexander I, the first Emperor and Grand Duke of Finland, as The Imperial Alexander University, and before long it adopted the new Humboldtian ideology, which was gaining ground in Central Europe. Wilhelm von Humboldt, Alexander von Humboldt's elder brother and the founder of this new ideology, regarded the development of scientific research along with teaching as the main task of a university, instead of just training students for certain jobs.[229]

As a result of this new approach, a scientific community started to form in Helsinki and the number of scholars started to grow remarkably. Here, the important role that Germany played in the developments of Finnish society in the nineteenth century can be emphasised again, as the training of new scholars took place there. At the same time, the number of scientific societies started to increase, and the first interdisciplinary society, The Finnish Society of Sciences and Letters with representatives from chemistry, physics and mineralogy, was founded in 1838.[230] This was not the first scientific society in Finland, however, as the establishment of the Societas pro Fauna et Flora Fennica had preceded it in 1821, but this society acted only in the field of zoology and botany as its name indicates.[231]

In the field of mineralogy, there were only a few representatives who did not have established contact with academic training at the beginning of the century. One of the pioneers organising prospecting for ore was Count Fabian Steinheil, the Governor General of Finland (1810–23), who took

229 Demandt 2008, 213.
230 Hausen 1968, 129; Lehto 2000, 24.
231 Lagerspetz 2000, 194.

the initiative in establishing the Mining Board in Helsinki. His protégé Nils Nordenskiöld (1792–1866), the so-called father of Finnish geology, was appointed as the superintendent of the board, a post he held from 1823–65. In 1820, Nordenskiöld published *A Contribution to the Knowledge of Finland's Minerals and Geognosy*, which was the first handbook on Finnish minerals. Principally, Nordenskiöld was concerned with practical mineralogy and geology, and thanks to his initiative, the geological mapping of Finland began in the 1860s. Through his activities in Finland, Nordenskiöld became acquainted with the Finnish landscape and its particular features, paying special attention to the rounded bedrock hillock and the striations on their northern side. Furthermore, he travelled widely in Europe, as well as in the Ural Mountains, collecting minerals.[232] The first chair of mineralogy and geology at the Imperial Alexander University was established in 1877, and Fredrik Johan Wiik (1839–1909) was appointed to it. Nine years later in 1886, while Wiik still held the chair, the Geological Society 1886 was founded.[233]

In Finland there are no active volcanoes, no high mountain ranges, nor deep canyons or sediments containing fossils, so geology remained a descriptive science for most of the century. It was not possible to study the flat and ancient Finnish bedrock, which consists of granite and gneiss, using the equipment that was available during the first half of the nineteenth century. After the introduction of polarised light microscopy, the situation changed during the second half of the century, and the first person to use it in Finland was actually Wiik in the 1870s. This resulted in a powerful advancement in Finnish geological research.[234]

ZACHARIAS TOPELIUS AND FINNISH GEOGRAPHY

As mentioned earlier, Topelius can be regarded as Humboldt's Finnish counterpart due to his activities both in the field of science and arts. In his own writings, Topelius expresses his admiration for Humboldt and his personality suggests there were similarities between the two men. And yet, unlike Humboldt, Topelius's intention was to combine the newest scientific discoveries with the biblical Creation of Earth.[235] From the 1860s onwards, however, he started to reject new scientific theories and Darwinism in particular. Correspondingly, he disapproved of the European literary Realism and Naturalism.[236] Today we would not regard Topelius a naturalist or a scientist, but in his own times he was definitely considered to be both. His

232 Also his son Adolf Erik Nordenskiöld (1832–1901) became a mineralogist, but he had to leave Finland for Sweden due to political reasons 1857. Later he became famous as an explorer who discovered the North-East Passage. Hausen 1968, 16–17; Haapala 2000, 270, 295.

233 Hausen 1968, 13, 129.

234 Haapala 2000, 271–272.

235 Tiitta 1994, 129.

236 This part of Topelius life's work has been covered by Nils Erik Forsgård in his *I det femte inseglets tecken* (1998) which discusses Topelius's philosophy of life and history from the mid-1860s until his death in 1898.

life's work, nonetheless, was characterised by poetry and thus he had a connection with Romanticism. In the spirit of nineteenth century nationalism, he also influenced Finnish people's conception of the country as a distinctive geographical unit. Moreover, we can thank Topelius for the image of Finland, with its geographical borders represented by a young maiden dressed in blue and white – the colours of the Finnish flag.[237] In this context, it is worth noting that both Holmberg and Churberg knew Topelius in person. In fact, Topelius had taught history to Holmberg at school, and Churberg had attended lectures given by Topelius.[238] In addition, Magnus von Wright and Topelius worked together several years and by the time they also became good friends, sharing a lot of interests in the field of arts and the natural sciences.[239]

As for the development of geography in Finland, Topelius played a major role because he could determine the content of school curriculum on geography to a great extent, stressing the scientific nature of the subject.[240] If we examine Topelius's connections in an international context, we do not know how familiar he was with the writings of Humboldt or his colleague Ritter, because Topelius did not own any of them or refer to them in his lectures. There is a note in his diary on the day that Humboldt died though, and he wrote about Humboldt's death in his newspaper *Helsingfors Tidningar*, describing him as the 'celebrated doyen of natural sciences' and as the 'most honourable, highly esteemed fighter of the future'.[241] Later in the same year, Topelius wrote about Ritter's death.[242]

Topelius, like Humboldt, was a supporter of Vulcanism. Being a religious person, the new discoveries in science, which he followed assiduously, caused him trouble, however. He became a supporter of Vulcanism in its static form and disapproved of the ideas concerning evolution, but rather leant towards the catastrophe theories**.** Accordingly, in his lectures he emphasised God's role as Earth's Creator.[243] Both Topelius' illustrated travel account, *Finland framställdt i teckningar* (*Finland Illustrated in Drawings,* 1848,) and his lectures, which he entitled 'Geography of Finland', partly mediated Humboldt's idea of landscape observation. Hence, Topelius made empirical observations and described landscape in a Romantic spirit, on account of which geographical areas were divided by natural borders, such as rivers or mountains, leaving other factors unnoticed; but he did not combine geographical areas with their landscape. In fact, he seldom used the concept 'landscape' (*landskap*), by which he meant a province,

237 Tiitta 1994, 146, 148.

238 Churberg's letter to Rosina Heikel on 21 September 1865; Westermarck 1937, 18; Konttinen 2012 [1994], 28; Hautala-Hirvioja 2005, 162.

239 Tiitta 2017, 93–96; See also Tiitta 2019, which describes Magnus von Wright's and Topelius's friendship more closely.

240 Tiitta, 1994, 321.

241 […] *Vetenskapens firade nestor, framtidens ärorikaste och högst uppburne kämpe* […]. *Helsingfors Tidningar* on 18 May 1859.

242 *Helsingfors Tidningar* on 15 October 1859.

243 Darwinism reached Finland sometime between the end of the 1850s and beginning of the 60s. Topelius remained quite opposed to it all through his life, although he could share some of Darwin's ideas. Tiitta 1994, 145, 149; Forsgård 1998, 161–162.

but rather talked about a view (*utsigt*), and sometimes even used the concept of a 'total view' (*totalbild*) leaning towards Humboldt's terminology.[244]

As a matter of fact, Topelius's approach to geography was that of an historian, which was still common in Finland in the 1870s. Consequently, he wrote as if he was describing Earth's history. As such, Topelius did not influence the development of scientific landscape, as Olavi Granö states, but rather played a vital role in developing the visual tradition, as well as the premise for landscape art. Along with the Finnish national poet Johan Ludwig Runeberg, and the writer Aleksis Kivi (1834–72), he contributed to the ideology of the Finnish national landscape. Accordingly, descriptions of nature constituted an intrinsic value in Finnish literature. As a result, this tradition became an essential part of Finnish patriotism, according to Pertti Lassila.[245] Apart from geology and geography, Topelius' lectures also touched on the domains of climate, and he emphasised the importance of regular weather observation. In addition, he lectured on flora and fauna, describing particularly Finnish forests and the characteristics of trees.[246] Due to his writings, his influence was not limited to his own time, but stretched far into the twentieth century.[247]

After Topelius, the Humboldtian tradition continued in Finnish landscape studies. The Finnish botanist and plant geographer Ragnar Hult (1857–99) not only shared Humboldt's ideas concerning the importance of aesthetics as a vital part of landscape studies, but also his emphasis on the characteristics of plants according to his physiognomy of nature. Unlike his contemporaries, Hult continued the tradition in landscape studies both in his writings and at the university, and therefore it survived in geography, but not in botany.[248] For Hult, geography studied mainly the terrestrial organisation of Earth and the factors related to it. In general, geography remained mainly an auxiliary science of history until the 1870s, but after that the situation improved. Inspired by the changes that took place in Germany in the 1870s, two geographical societies were founded in Finland in the following decade. They started to promote geographical investigation, and thus the independent status of geography as a science.[249]

Nineteenth-century landscape art in the form of paintings and drawings played an essential role in empirical landscape studies conducted in the Humboldtian spirit, but towards the end of the century it was replaced by photography. In this respect, the development went hand in hand with the ever-growing positivism emphasising objectivity in scientific research work.[250]

244 Topelius wrote in Swedish and he used the concepts *landskap* and *utsigt* as well as *totalbild* or *scen*. Granö 1996, 48.
245 Granö 1996, 48; Lassila 2000, 11.
246 Tiitta 1994, 100, 186–187.
247 Tiitta 1994, 7.
248 Granö 1996, 48.
249 Tiitta 2000, 308–309.
250 Granö 1996, 48.

3
ARTISTIC EXPEDITIONS AND LANDSCAPE AESTHETICS

At the turn of the eighteenth and nineteenth centuries, the discussion in Germany revolved around the ideas generated by Romanticism. At the time, the centre of German Romanticism was Dresden, and a lively interaction between artists and scientists existed there. Consequently, artists started to pay attention to similar details and items mentioned by Humboldt as worth depicting, but Humboldt also relied on different aesthetic terms in his writings concerning landscape. Moreover, it was in Dresden that Johan Christian Clausen Dahl started to plan his painting trips to the Norwegian mountains. He had already hatched the idea in Copenhagen while still studying there.

On account of his own experiences, Humboldt encouraged artists to travel and cross European borders to make trips to more remote and exotic places.

> *Landscape painting cannot, therefore, be noticed in further relation than that of its representation of the physiognomy and character of different portions of Earth, and as it increases the desire for the prosecution of distant travels, and thus incites men in an equally instructive and charming manner to a free communication with nature.*[251]

Instead of remaining in the Mediterranean area, Humboldt urged artists to study and depict nature in the tropics which, to his mind, offered ideal motifs. He realised the importance of illustrations on scientific expeditions and emphasised close observation of nature in order to grasp the visual impressions as truthfully as possible. Thus Humboldt contributed to the birth of a new genre in arts – travel art, or *Reisekunst* – which flourished especially in the nineteenth century.[252] In his *Views of Nature,* Humboldt even listed the tasks for artists to carry out. He stated how artists had the possibility to depict the characteristic features of nature, and thus create the total impression of landscape so important for his holistic view of nature.[253]

251 […] *es kann hier der Landschaftsmalerei nur in der Beziehung gedacht werden, als sie den physiognomischen Charakter der verschiedenen Erdräume anschaulich macht, die Sehnsucht nach fernen Reisen vermehrt, und auf eine eben so lehrreiche als anmuthige Weise zum Verkehr mit der freien Natur anreizt.* Humboldt 2004 [1845–1862], 225; Humboldt 1852, 82–83.

252 Diener 1999, 137.

253 Diener 1999, 137; Diener 2003, 50.

As discussed in the previous chapter, Humboldt not only inspired artists to take up artistic expeditions, but also influenced their vision of landscape aesthetics, and thus what to draw and paint from nature, as well as how to compose characteristic landscapes. Nature acted as a teacher for Humboldt – the very same idea that was emphasised by Schirmer in Düsseldorf. Moreover, his ideas about studying the characteristics of plants out in nature can be related to the sketches and studies artists made from nature on their trips in Düsseldorf. As to the aesthetic values of landscape painting, these varied to a great extent in the course of the nineteenth century. Notions of the *sublime*, the *picturesque* and the *beautiful*, which had been introduced in eighteenth-century Britain, were still in use during the first decades of the century, but they started to give way to new values towards the 1850s. There are differences between different countries though.

In illustrated travel accounts, the subjects of landscapes followed the formulae of the *picturesque* and the *sublime* for a longer time, but the overall appearance became modified. Barbara Stafford, who has studied the history of illustrated travel accounts, writes how the illustrators were not interested in depicting only the sights, but often developed a desire to discover, too.[254] The role of travel accounts, which are closely allied not only with landscape and outdoor painting, but also with scientific interest, will be discussed at the end of the chapter. In the 1840s, there was a clear shift, nevertheless, and the old terms and aesthetic values seemed to diminish. They were gradually substituted by new criteria in the wake of scientific interest in the arts on a larger scale. The impact of this development can be seen in the realistic approach in the arts in general, where the artistic focus lay in the depiction of the outer world. This trend, however, is different from what had happened earlier in the century, and it will be discussed more closely in chapter four, dealing with Düsseldorf.

EARLY GERMAN OUTDOOR PAINTING IN DRESDEN

When talking about the history of open-air painting in general, Italy and France are normally regarded as the forerunners,[255] but remarkable steps were taken in this field in other European countries, as we will see later in this study in relation to Düsseldorf.[256] However, earlier landscapists, such as Claude Lorrain, focused mainly on painting the middle ground and back-

254 Stafford 1984, 4–5.

255 The Swedish art historian Torsten Gunnarsson, who has studied the history of open-air painting in Scandinavia, mentions Albrecht Dürer's *Landscape from South Tyrol* (1495) as one of the earliest examples of landscape studies in watercolour. He also assumes that making studies in oil was probably more common in seventeenth-century Italy than was previously thought. As proof of this, he mentions the painter's box, its structure and how it was used. The painter's box as such seems to have remained much the same, and it was also widely used in Düsseldorf, which will be discussed in chapter four. In his investigation, Gunnarsson makes a clear distinction between studies in watercolour and oil. Gunnarsson 1989, 21, 26.

256 In France, there are two famous examples to be mentioned. Firstly, Alexandre-François Desportes (1661–1743) who had already painted in the open air during the first decade of the eighteenth century, and made studies of plants by a river and a pond, as well as of clouds, including the effect of light at sunset. In addition, Pierre-Henri de Valenciennes (1750–1819), who is usually mentioned as the forerunner of French open-air painting, made studies of nature outdoors, both in Brittany and Italy in the 1770s and 1780s. Valenciennes, moreover, took great interest in the depiction of natural light. In the following century, outdoor painting gained firmer ground when Camille Corot (1796–1875) studied landscapes both in Italy and, along with a group of other French artists, in Barbizon, before the dawn of Impressionism. In contrast to other European countries, outdoor sketching and painting in France developed from the academy tradition to a great extent. Holsten 2002a, 14, 25; Andrews 1999, 190–191; Galassi 1991, 11–39; Gunnarsson 1989, 34, 36; For the French academy tradition, see also Albert Boime's extensive study *The Academy and French Painting in the Nineteenth Century* (1971), and chapters VII–VIII concerning landscape painting in particular, as well as the corresponding terminology. Galassi also resorts to Boime's terminology in his research on Corot's outdoor painting in Italy.

4 CASPAR DAVID FRIEDRICH
Wanderer above the Sea of Fog, c. 1818
oil on canvas
94.8 x 74.8 cm
© SHK/Hamburger Kunsthalle/bpk
Photo: Elke Walford

ground, but in the course of the eighteenth century, the nature of outdoor studies changed due to a different approach in terms of space and time.[257] Consequently, artists also started to depict in detail the foreground which stood right in front of them. The German scholar Werner Busch claims that this led to the development of an autonomous oil study at this time.[258] Furthermore, a number of pioneers painted landscapes in watercolour and oil in the 1770s and 1780s in Britain. Because of the rapidity of execution in water-

257 For the classical composition of landscape, see, for instance, Bätschmann 2007, 57–61.

258 Busch 1983, 127–128.

colour, oil painting in the open air also became less formal and approximated the mode of watercolour sketching.[259] Drawing and painting studies directly from nature was, in effect, quite a common practice in Europe at the beginning of the nineteenth century, and artists in Germany,[260] Austria and the Nordic countries started to practise it too.[261]

Although Dresden is not the main focus of this study, it is essential to discuss its role in the development of German outdoor painting. As stated earlier, Dresden served as a stage for German Romanticism around 1800, and an animated discussion on the topic existed between artists and scientists at that time. Many artists, poets, naturalists and philosophers gathered in the city, and the literary and musical salon of the German lawyer Christian Gottfried Körner (1756–1831) attracted many of them, including Alexander von Humboldt and Henrik Steffens.[262] One of the artists whose works the Romantics praised as containing the visual embodiments of their ideas was Caspar David Friedrich, who stated that the artist was supposed to depict his soul and his feelings.[263] Granted that Friedrich has been described as a 'quintessentially Romantic painter' by Joseph Leo Koerner in his *Caspar David Friedrich and the Subject of Landscape*,[264] it is still intriguing to examine his artworks and studies from a Humboldtian point of view. And even though we cannot say that Friedrich would have been impressed by Humboldt's ideas directly, his artworks tell us about his interest in studying natural phenomena in the open air.

Friedrich eagerly sketched trees, rocks and mountains from nature on his trips along the Elbe and in the Harz mountain region, as well as in Rügen and Bohemia, taking note of the same things mentioned by Humboldt.[265] For the same reason, we can detect certain details and connect them with real places in the Elbe valley when we look at his *Wanderer above the Sea of Fog* (*Wanderer über dem Nebelmeer*, 1818).[266] Friedrich's painting, nevertheless, does not represent a true-to-life view

259 In the 1770s, the English artist Thomas Jones (1742–1803) made studies of clouds, as well as practised how to sketch a distant and hilly landscape. While in Italy, Jones also painted studies of his living quarters, such as a view of his kitchen. Later in the following century, there were several English painters who cherished the tradition further: John Constable and William Turner were the most famous, but along with them were, for instance, the Varley brothers, John (1778–1842) and Cornelius (1781–1873), and their circle. Also Constable used to leave the foreground relatively free in his early studies. Busch 1983, 130–131; Klonk 1996, 101–147.

260 In Munich, for instance, Johann Christian Reinhart (1761–1847) and Johann Georg von Dillis (1759–1841) experimented with outdoor studies both in Italy and Germany. Dillis, for example, was so inspired by Valeciennes's cloud studies in Italy that he started to practise painting them on his return to Germany. Gunnarsson 1989, 32–33; Busch 1994, 280. For the history of open-air painting in oil 1800–50, see, for instance, Gunnarsson 2002, passim. 34–41.

261 From Austria, the best known is Ferdinand Georg Waldmüller (1793–1865), and in Denmark, the artists of its Golden Age, such as Christoffer Wilhelm Eckersberg, Christen Købke and Johan Thomas Lundbye (1818–1848), practised outdoor painting, Eckersberg being said to have been the first Nordic artist to paint directly from nature. In Sweden, Gustaf Wilhelm Palm was one of the local pioneers who travelled to Italy to paint quite large-scale oil studies in the Roman Campagna. Gunnarsson 1989, 41, 55, 245–246.

262 Among the visitors were, for instance, Friedrich Schiller (1759–1805), Wolfgang Amadeus Mozart (1756–91), Friedrich von Hardenberg (1772–1801), aka Novalis, August Wilhelm Schlegel and his brother Friedrich Schlegel, Heinrich von Kleist (1777–1811), Goethe, the brothers Alexander and Wilhelm von Humboldt, and the Norwegian-born naturalist and philosopher Henrik Steffens. Klieme & Neidhardt 2008, 21, 24.

263 Howoldt 2003, 85.

264 For the relationship of Romanticism and Friedrich's art, see Koerner 2009 [1990], 29–36.

265 In the Harz, for instance, Friedrich sketched the outline of the undulating landscape on 25 June 1811, and depicted a marble excavation in a pencil drawing on 26 June 1811. Then he continued studying the same motif the following day, this time composing it in pencil and in watercolour. Later, in his studio, Friedrich used the sketches and studies for composing his landscapes in oils, such as the *Felsenschlucht*, which represents the same marble excavation on a larger scale, or he just included them as details in the finished pictures; for the artworks of the marble excavation, see Zschoche 2000, 49, 51, 55, 88; for the other motifs, see No. NG.K&H.B.16030, NMO; No. C 1937–417, KK, and also Kuhlmann-Hodick & Spitzer 2014, 97.

266 For Koerner's analysis of Friedrich's artwork in general, see Koerner 2009 [1990], 210–228.

as seen when standing on the rock, but rather a collection of different geological phenomena that Friedrich placed looming amidst the fog. There, for instance, the rock the man is standing on is still to be found in the same place. Also, the view opening up in front of him consists of geological details that can be spotted along the way, such as the rugged sandstone tops of Elbe Sandstone Mountains (Elbsteingebirge) smoothed out by the weather, or the top of the rock wall at the Bastei situated just before him, or the sloping basalt mountain-tops amidst the fog – and even the protruding tops of the Rosenstein on the left and the Zirkelstein on the right.[267] Therefore, it is very tempting to suggest that, in this picture, Friedrich not only depicted his inner soul, but also very concrete features which he – the wanderer, or the halted traveller, as Koerner calls him – had seen surrounding him while walking in the Elbe valley.[268] More precisely, it explains the observations he had made. The geological details in the picture not only refer to real places in the Elbe valley, but also to Earth's history, and thus to different geological processes that had taken place there. In fact, Friedrich learnt about geognosy from his friend Gotthilf Heinrich Schubert (1780–1860), who was a physician and naturalist by profession, and had been Abraham Gottlob Werner's student in Freiberg.[269] Friedrich's interest was not limited to geognosy only, but later in his career, in the 1820s, he took a special interest in the study of natural phenomena in the sky, and this was sparked off by his friends and colleagues Johan Christian Clausen Dahl and Carl Gustav Carus.[270]

JOHAN CHRISTIAN CLAUSEN DAHL IN THE NORWEGIAN MOUNTAINS

During the heyday of German Romanticism, Dahl and his artworks played an important role in the artistic discovery of the Norwegian mountains in Germany. During his career, Dahl actually formed an early link between German and Norwegian art, and it is his artworks depicting Norwegian motifs, particularly the mountains, that earned him artistic renown. He was

267 Nowadays, there is a hiking route, *Malerweg*, in which one can follow in the footsteps of Friedrich; thus the wanderer can stop at different spots where there are pictures of Friedrich's artworks showing the details he had sketched there. See also Richter 2009, 128–129 and 2012, 49–50. Koerner points out that Carus has noted how Friedrich never made any preparatory studies in oil, but instead began to work directly on a blank canvas. In this process, he had the finished picture fixed in his mind. Koerner describes Friedrich's studies as his 'raw material' which he 'integrated into his painted landscapes, but only when he returned to his closed studio to reimagine the landscape from within.' Koerner, moreover, divides Friedrich's studies into two groups, and thus they either 'record the specific shape of individual objects distilled from their settings', or 'they map out the basic structure of a landscape fixing the particularity of its profile […]'. Koerner 2009 [1990], 219, 222.

268 In comparison, Koerner talks about 'moments of visual attention' and how the world in the painting seems to be an 'emanation' from the gaze of the *Rückenfigur* which is 'so prominent in the composition'. Koerner 2009 [1990], 213, 218.

269 Koerner describes how Friedrich regarded nature as a symbol of a creative process which was parallel to his art. Howoldt 2003, 85; Koerner 2009 [1990], 225.

270 Koerner claims that Friedrich's interest in cloud studies was not focused on their structure and outline, but their 'relationship to the infinite, illuminated heavens they cover'. Koerner 2009 [1990], 226; compare with Bätschman who describes Friedrich's landscapes from Rügen (originally in his sketchbook from Rügen) as *endlose Landschaften,* landscapes with no end, and states that most landscapists used this format for sketches and studies of clouds, seascapes and panoramas. Bätschman 2007, 65.

6 JOHAN CHRISTIAN CLAUSEN DAHL
Sketch from Fortundalen, dated 10 Aug 1826
wash pencil drawing on paper
The National Museum of Art, Architecture and Design, Oslo
Photo: The National Museum of Art, Architecture and Design / Dag Andre Ivarsøy

7 JOHAN CHRISTIAN CLAUSEN DAHL
Sketch from Måbødalen, dated 26 July 1826
wash pencil drawing on paper
The National Museum of Art, Architecture and Design, Oslo
Photo: The National Museum of Art, Architecture and Design / Dag Andre Ivarsøy

5 JOHAN CHRISTIAN CLAUSEN DAHL
A View from Lyshornet, 1836
oil on canvas
41 x 50.5 cm
The National Museum of Art, Architecture and Design, Oslo
Photo: The National Museum of Art, Architecture and Design

also a forerunner of several Norwegian landscapists who moved to Germany to study. As such, Dahl paved the way for a more realistic approach to Norwegian landscape art, and in his pictures we can detect his interest in natural phenomena. Dahl was born in Bergen, so it was understandable that he returned there to depict the mountains.[271] Nevertheless, he had created his first artworks based on the Norwegian mountains from the drawings of Carl Friedrich Naumann (1797–1873), a German mineralogist and geologist, who had visited Norway in 1821 and 1822.[272] But it was only in the summer of 1826 that Dahl arrived in Norway to depict the mountains on the spot. Before this trip, the Norwegian landscape had remained quite unfamiliar to him, except for the environs of Bergen.[273] The trip proved to be very fruitful, since there are over 250 sketches from this journey. In these sketches, which Dahl obviously executed rather rapidly, focusing mainly on the rendering of the terrestrial structure of the mountains, he carefully marked the dates and places, as well as some human figures.[274] And yet it is noteworthy that his first landscapes of the Norwegian mountains, which he also exhibited at the Royal Drawing School in Oslo in 1820, were not taken from nature.[275]

Dahl's painting *A View from Lyshornet* (*Fra Lyshornet*, 1836) takes us to the high mountains in Norway. He painted it in 1836 using the sketches he had made two years earlier in Norway.[276] As such, it describes his experience of that landscape: we are standing on a mountain-top called Lyshornet, which is some 400 metres high, and we can see a row of undulating mountain-tops reaching to the horizon. The mountains in the area seem to be more or less of similar height with no sharp peaks. The sky is covered with dark *nimbus* clouds forecasting rain on the right, whereas a clearer spell with some *cumulus* clouds is withdrawing to the left. On the horizon on the left, we can also see the remaining colours of the setting sun, ranging from light yellow to purple. This gives us some indication of the cardinal points, and thus refers to the west in the picture. Amidst the mountain slopes on the left, we can detect a fjord winding in a valley and then disappearing behind the mountains in the middle ground. In the dark foreground on the left, we can see a small pond, or a lake, formed in a depression. Its surface seems to reflect some light from the *cumulus* clouds above. Ragged *stratus* clouds are drifting in the gorges between the mountains. The mountaintops in the middle ground on the right are lit by daylight – cast from the opening between

271 He had already shown an interest in depicting the Norwegian mountains in a letter in 1818. At that time he was still studying in Copenhagen and taking private lessons in painting from Christian August Lorentzen (1746–1828), who was, actually, one of the first artists to depict Norwegian mountains. On account of this, it seems quite obvious that it was Lorentzen who gave him the idea to go on a painting trip to Norway. Gunnarsson, however, mentions the Danish artist Erik Pauelsen (1749–90) as the first artist who depicted Norwegian nature purposefully with artistic intention. In his study in general, Gunnarsson does not discuss any journeys made in accordance with the illustrated travel accounts nor the pictures composed with scientific interest, but focuses on outdoor painting only. Messel 2008, 103; Gunnarsson 1989, 160.

272 Messel 2008, 122.

273 While travelling in Norway in the summer of 1826, Dahl made sketches depicting mountain views at different locations, as for example in Fortundalen on 10 July, in Måbødalen on 26 July, and in Nærøydalen on 29 July. Nos. NG.K&H.B. 02170, NG.K&H.B.02171 and NG. K&H.B.02188, NMO; Ydstie 2002, 38.

274 Ydstie 2002, 37.

275 Messel 2008, 108, 126.

276 Dahl remained in Dresden for the rest of his life, but visited Norway on four more occasions, in 1834, 1839, 1844 and 1850. In 1834, Dahl travelled together with Knud Baade in Norway, and in 1844 he was accompanied by Peder Balke. Ormhaug 1988, 69–72; Wiech 2002, 118; Bringager 2014, 146.

8 JOHAN CHRISTIAN CLAUSEN DAHL
Sketch of the Sky, No. NG.K&H.B.01916
pencil and white crayon on paper
The National Museum of Art, Architecture and Design, Oslo
Photo: The National Museum of Art,
Architecture and Design / Øyvind Andersen

9 JOHAN CHRISTIAN CLAUSEN DAHL
Sketch of the Sky, No. NG.K&H.B.01922, undated
wash pencil drawing on paper
The National Museum of Art, Architecture and Design, Oslo
Photo: The National Museum of Art,
Architecture and Design / Øyvind Andersen

the clouds – revealing their structure. Their contours are rounded and there are no traces of any higher vegetation on them, such as trees or bushes. Instead, the different shades of green and grey with patches of red refer to different types of moss, lichen and heather. In the dark foreground, close to the lower left-hand corner, we also distinguish some goats and a goatherd. Another indication of human impact lies between two mountains on the horizon on the left, where we can recognise the silhouettes of some buildings. Along with the name of the mountain, they might give us a hint of the location of the view in Hordaland near Bergen.[277] The setting sun and Bergen in the same direction may be a bit misleading since Bergen lies some 30 kilometres northwest of Lyshornet, and not exactly in the west. This detail, nonetheless, can indicate that it is summertime, and the sun sets later – that is to say, farther towards the north-west.

If we compare the artworks by Friedrich and Dahl, we can say Friedrich tried to establish the eternal, but Dahl aimed at catching the ephemeral. In Dresden, Dahl was interested in studying natural phenomena in the open air. Apart from celestial phenomena and trees, he was occupied with the geological formations in Germany and most importantly in Norway. This is clearly evident in his painting above, too. During his career, he made several studies of clouds and atmospheric phenomena at different times of day.[278] In addition to his numerous oil studies of clouds, Dahl made a number of more or less hastily composed sketches of the sky with clouds, both in the daytime, and at night.[279] If Friedrich's pictures are said to represent his inner world, but with hints of outer reality and with the aim of depicting the divine in nature, Dahl's artworks are considered to embody a new – a more 'objective' and 'true-to-life' – approach to nature.[280] Therefore their artworks have different kinds of impact on us: while Friedrich's pictures lead us to contemplation and self-reflection, Dahl's works arouse a pleasant feeling in us, as stated by the German scholar Werner Busch.[281] If we examine the motifs they used, Friedrich concentrated mainly on landscapes in Germany, whereas Dahl found interesting landscapes everywhere. Both Friedrich and Dahl started to depict trees while studying in Copenhagen. Dahl also made several sketches and studies of trees and tree roots.[282]

As for the Romantic idealism prevailing in Dresden at the time, Gunnarsson suggests that this influenced Dahl, but only to a certain de-

277 Bringager 2014, 146–147.

278 This interest was sparked off during his stay in Italy (1820–21), where the method of making oil studies from nature was popular, almost a trend. Busch 2014, 22.

279 See Nos. NG.K&H.B.01911, NG.K&H.B. 01916, NG.K&H.B.01922, NG.K&H.B. 01924, NG.K&H.B.01928, NG.K&H.B.01930, NMO.

280 Gunnarsson talks about 'detail realism' here, and how Dahl borrowed elements for composition from earlier classical landscape tradition. Gunnarsson 1989, 159.

281 Busch stresses the religious approach by Friedrich in contrast to Dahl. Busch 2014, 17, 19, 23.

282 In some of the sketches and studies, it is easy to recognise what kind of tree it is, such as an oak or a birch, but there are also several artworks of broadleaved trees which are more difficult to recognise. Busch 2014, 18; for the artworks, see Nos. NG.K&H.B. 01576, NG.K&H.B.01863, NG.K&H.B.01864, NG.K&H.1989.0068-022, NG.K&H.B.02825, NMO.

△

10 JOHAN CHRISTIAN CLAUSEN DAHL
Study of Clouds, No. NG.M. 00426-005, undated
oil on paper fixed on cardboard
15 x 21.5 cm
The National Museum of Art, Architecture and Design, Oslo
Photo: The National Museum of Art, Architecture and Design

11 JOHAN CHRISTIAN CLAUSEN DAHL
▽ *Study of Clouds*, NG.M. 00426-016, undated
oil on paper fixed on cardboard
15 x 22 cm
The National Museum of Art, Architecture and Design, Oslo
Photo: The National Museum of Art, Architecture and Design

gree, as it did not change his art immediately. After Friedrich's death, however, Dahl is said to have written how Friedrich knew that an artist depicted his own feelings instead of nature itself. Gunnarsson, moreover, claims that even though Dahl found the natural sciences important, he was not especially enthusiastic about them – not at least as much as Carus.[283] But when we look at both Friedrich and Dahl's paintings, it is difficult to see them only as depictions of their feelings. This might indicate a deeper meaning to their artworks, but from today's point of view one can read them as manifestations of natural phenomena and natural history as well. After all, Dahl had already shown an interest in natural history in his hometown Bergen, and after that in Copenhagen. Throughout his career, it was important for Dahl to make studies from nature, and as a token of this, oil studies from nature constitute a big part of his œuvre.[284] Dahl even wrote on many of his studies that they had been made from nature (*efter naturen*) to indicate this. As for his ideas about landscape painting, Dahl thought that it was important to be out in nature as a quiet observer, but one could not copy nature directly.[285] Furthermore, he emphasised that one had to understand nature, its language and physiognomy, in which case clouds and atmosphere were important. This is actually evidenced by the numerous cloud studies he made during and after his trip to Italy in 1820–21.[286] Dahl also talked about the importance of the characteristics of a country and its nature.[287] This connects him not only with Humboldt, but also with his friend and colleague Carl Gustav Carus. Even if Gunnarsson claims that Dahl was not striving for a pure naturalistic approach, I would suggest that his artworks contain many elements that indicate his close observation of nature in the spirit of the naturalism of the first half of the nineteenth century.[288] At that time, both landscapists and scientists were referred to as naturalists, and their approach to nature had similarities, too.[289]

CARL GUSTAV CARUS AND HIS ERLEBEN-BILDKUNST

In 1814, Dahl's younger friend Carl Gustav Carus arrived in Dresden. He was a representative of the Romantic natural sciences that reached its peak around 1820, but the reverberations of which have continued until today.[290] Apart from being mainly a physician and a scientist, Carus has also been regarded as an artist and art theorist. Furthermore, he used drawings as an aid to his medical and scientific research, as well as his publications, mak-

283 Gunnarsson 1989, 168.

284 Gunnarsson points out that not all of Dahl's oil studies were made completely outdoors, but only partly. This applies especially to those he made while in Copenhagen. Anyhow, this was a common procedure in the nineteenth century. Gunnarsson 1989, 159.

285 Gunnarsson 1989, 160, 302.

286 Werner Busch claims how Dahl started to paint pure cloud studies in 1823, and finds two likely reasons for this. For one thing, Dahl had moved to the same house with Friedrich by the river Elbe in Dresden. So he could have painted the studies from his window overlooking the Elbe. Secondly, Carus might have made him aware of Goethe's writings on Luke Howard. (Carus addresses Goethe's poem to Howard especially in letters VI and VII in his *Nine Letters on Landscape painting*.) Busch also notes how Dahl inspired Carl Blechen (1798–1840) to study clouds while in Dresden in 1823. Busch 1994, 280–281.

287 Moe 1988, 102.

288 For naturalism in Dahl's œuvre, see also Bang 1992, 26–37.

289 Ydstie 2002, 37.

290 Engelhardt 2009, 29.

ing him a scientific illustrator, too. As for scientific illustrations, we could say that he has points of resemblance to the Finnish von Wright brothers. It is to be noted, however, that Carus's role in the field of the arts seems to be a little ambiguous; notwithstanding his appreciation as a landscapist and theorist, he has also been considered a dilettante as an artist, and his writings regarded only a leisurely pastime. Due to his many-sided activities, nonetheless, we can say that, like Alexander von Humboldt, Carus serves as a link between art and science, and in this study he also forms a link between Dresden and Düsseldorf. Many of his writings and ideas bear a resemblance to the way artists worked in Düsseldorf. Moreover, it is noteworthy that Carus admired both Goethe and Humboldt; he shared their idea of the experience of nature and how nature had to be felt. Therefore it is no surprise that studies from nature play a prominent role in Carus's œuvre, and here he was following both Dahl and Friedrich's leads, too.[291]

In his *Lebenserinnerungen und Denkwürdigkeiten* (1865–66), Carus regarded himself as a scientist first, but also as a landscapist, albeit without proper training.[292] As a consequence of combining art with science in his medical research, Carus started to apply the same principle to landscape painting.[293] Correspondingly, Carus predicted a great future for landscape painting, and urged artists to renew landscape painting in order to merge artistic tradition with scientific observation and emotional truth.[294] Carus explored the goals of landscape painting in his *Nine Letters on Landscape Painting* (*Neun Briefe über Landschaftsmalerei,* 1831) which he wrote in the years 1815–24. There he stated how young artists were supposed to understand the connection between different forms of mountains and their structure, the causal relationship between a place and its flora, the laws that control the growth of plants, or the atmospheric phenomena. In addition, their task was to learn the mysteries of light and how it affects colours.[295] And when drawing, he realised that he needed to start by tracing the outline of an object, after which he could proceed to completing it.[296] Here he was following both Humboldt and Goethe's ideas.

For Carus, the relationship between man and nature was not based on reason only, but also on sight and on the tactile sense.[297] Inspired by Humboldt's *Views of Nature*, Carus introduced a new purpose for landscape painting, which he called Earth-life painting*, Erdleben-Bildkunst*.[298] Its target was to train the artist's eye first of all to 'apprehend the shapes of natural objects not as arbitrary, undefined, lawless and consequently

291 Kuhlmann-Hodick 2009, 163.
292 Gedlich 2009, 105; Bätschmann 2002, 6.
293 Carus 2002 [1815–1824], 137.
294 Bätschmann 2002, 8.
295 Carus 2002 [1815–1824], 126.
296 Carus 2002 [1815–1824], 137.
297 For Carus's conception of space, see, König 1997, 208–209.
298 Bätschmann 2002, 30.

12 CARL GUSTAV CARUS
Geognostic Landscape, 1820
oil on canvas
91.5 x 133 cm
Staatsgalerie Stuttgart, on loan from a private collection
Photo: Staatsgalerie Stuttgart

as meaningless', and then to 'discern the diversity of substance in natural objects, observe the difference in the appearance of one and the same form embodied in different substances'.[299] Here Carus's intention was to replace the concept of landscape with the new concept *Erdlebenbild*, and in his artworks he aimed at objective rendering instead of Romantic *Stimmung*.[300] He talked about 'a profound reverence for every feature of the natural world' around him, and this encouraged him 'to pursue a strict truthfulness'. Every detail in nature deserved a precise reproduction.[301]

Just like his colleagues Friedrich and Dahl, Carus drew and painted sketches and studies of trees, clouds and mountains.[302] As a token of his interest in geology, he wrote several essays, and there are a number of detailed drawings and paintings depicting the Riesengebirge and the Alps.[303] If compared to Friedrich, Carus's artworks represent a different and newer approach to geology, in which Neptunism is replaced by Vulcanism. Carus also hiked in the Riesengebirge, following in the footsteps of Friedrich, but he took an interest in completely different phenomena there. In his *Geognostic Landscape* (*Geognostische Landschaft*, 1820), for example, he depicted the basalt cones penetrating Earth's crust.[304] While investigating natural objects, Carus stressed how one had to distinguish between the exterior and the interior. The former made it possible to form 'a mental image of the whole', whereas the latter showed its parts. But these two had to be combined in order to achieve a 'global idea of the nature of the object in itself'.[305] For him, geology considered 'Earth's body as a whole, but only in respect of its inward form'. The outer appearance and the inward structure of mountains could be studied separately, but the 'total impression was conveyed by the form of a mountain range' whereby an artistic representation in the form of drawings was necessary in order to make a 'true geognostic landscape'.[306] As a result of this, it was possible to discover the connection between the outer appearance and the inner structure, and thus 'devise a physiognomy of mountain ranges'.[307] As to the outer appearance of mountains, Carus also discussed the impact of weathering and erosion producing soil on Earth's crust, and compared the phenomenon to a human body in which the skeleton can be seen at some isolated points only if left uncovered by flesh and skin.[308] This idea can be applied to his *Geognostic Landscape* too, because the basalt columns, as depicted in the picture, are visible partly due to erosion and weathering.[309] Carus's new approach to geology also became evident later in his life when

299 Carus 2002 [1815–1824], 124–125.
300 Gunnarsson 1989, 167; Busch 2009, 183.
301 Carus 2002 [1815–1824], 137.
302 For trees, see Nos. C 1963–495 and C 1919–87, KK; for clouds, No. C 1963–134, KK; for mountains, No. C 1963–272, KK and NG.K&H.B. 15989, NMO.
303 For example, in *Andeutungen zu einer Physiognomik der Gebirge* (1820–21). Gedlich 2009, 108.
304 Carus found Werner's Neptunism old-fashioned, but he appreciated Werner's contributions to mineralogy. Howoldt 2003, 86.
305 Carus 2002 [1815–1824], 137.
306 Carus 2002 [1815–1824], 138.
307 Ibid.
308 Carus 2002 [1815–1824], 139.
309 Pullin 2011, 18–19.

he accompanied Frederick Augustus II, the King of Saxony, as his personal physician on an official visit to England and Scotland in 1844. In his travel account, Carus recalls a visit to the island of Staffa in the Hebrides, and to the nearby Fingal's Cave, a famous geological site with impressive basalt columns, which he depicted in two different drawings.[310]

As it took nine years to write the letters, Carus's views on landscape painting changed significantly over that time.[311] In the end, he thought that art and science should combine to produce an image aiming at the all-embracing ensoulment of nature.[312] Here he was following the ideas of Friedrich Schelling. For Carus, nevertheless, the artistic goal and the subject of landscape painting was to comprehend nature as the revelation of divinity, the language of God, in the pantheistic spirit of Romanticism. Hence he was trying to combine new ideas, introducing nature as a dynamic evolving entity, with the old dogma, according to which nature is subordinate to Almighty God.[313] In his thinking, landscape painting represented a religious outlook on life and the world. If a painting was a product of man's thoughts, Earth embodied the thoughts of God following the same pattern.[314] Carus was introducing his ideas at a critical moment, as a change of paradigm was taking place, and the new evolutionary history of Earth was under construction. Although Carus must have been aware of the newest theories concerning Earth's evolution, it was difficult for him to give up his faith. As a result, he tried to combine the new theory with the old dogma, making him a representative of the old school.

To conclude, both Dahl and Carus can be regarded as links between the artistic life in Dresden and Düsseldorf. Although they still represented the old school, they provided contacts between these two cities. Dahl served as an example and a role model for several Norwegian students to come, not only for those who took up art studies in Dresden, but also in Düsseldorf. He also influenced artistic interest in the Norwegian mountains. Moreover, we can assume that Carus and his writings were well known in Düsseldorf too.[315] For instance, Schirmer participated regularly in the exhibitions of the art academy in Dresden, starting in 1842, and he also met Carus in person in 1855 in order to obtain information for the syllabus in Karlsruhe.[316] Before that Carus had written a review of the exhibition of Düsseldorf art in Dresden in 1837.[317] Additionally, Schirmer's drawings in charcoal, a technique he had learnt in Paris in 1850, had made such an impression on Carus that he started to use it himself.[318]

310 Busch 2009, 179–183.

311 According to Busch, the first three letters can be categorised as Early Romantic, and they indicate Friedrich's influence on Carus. In the sixth letter, however, a change takes place; thus, the subjectivism is replaced by a more objective approach based on natural sciences. Busch 1997, 263; Bätschmann 2002, 6.

312 Bätschmann 2002, 7.

313 König 1997, 209.

314 König 1997, 211.

315 We do not know whether artists had access to Carus's writings while studying in Düsseldorf, because the old academy building was burnt down in a fire in 1872. Anyhow, we can assume that they were familiar with them.

316 Ewenz 2010, 28–29.

317 *Kunst Blatt* on 6, 11, 13 April 1837.

318 Perse & Richter 2010, 3–4.

THE EARLY TRADITION OF GERMAN LANDSCAPE AESTHETICS

There were various forces that shaped the opening of the nineteenth century. As discussed before, one of the most publicly recognised is the French Revolution, which had an intellectual impact even on landscape aesthetics. In addition, the great changes and discoveries in natural history and natural sciences at the turn of the century made people think about Earth and its relationship with its human inhabitants in a new way. In his study *The Geographic Imagination of Modernity* (2008), Chenxi Tang discusses the emergence of modern geographic science in Germany and its relation to Romanticism, especially in terms of poetry. Tang describes how an aesthetic subject was transformed into a geographic subject which imagined his identity in relation to a particular region of Earth. In aesthetics, this change originated with the young Goethe, and continued during the era of Romanticism. But if we think of landscape as an aesthetic notion, it does not necessarily comprise practical interest. To illustrate this, a farmer may see a landscape from a completely different point of view to an artist. For the farmer, the landscape obviously constitutes a very concrete source of income, but what does it constitute for an artist? We know that to compose a landscape as an artwork, we need to define the mode of perception, semantic structure and symbolic operations.[319] Late eighteenth-century landscape aesthetics played a key role when geography developed from being purely descriptive to the modern science we understand today.[320] This change of geographical reality affected landscape painting, too. I believe that these changes reflected landscape painting in Dresden first and in Düsseldorf later in the nineteenth century, and the great number of sketches and studies composed in the open-air are also related to this phenomenon. To understand why, it is necessary to discuss the developments and concepts dealing with landscape aesthetics more closely in this chapter.

Today we are aware of the essential role that all the senses play in the experience of nature. It was also one of the reasons that the landscapists went out to sketch and study from nature. In landscape painting, the technical execution of the picture with its different elements, such as the construction of perspective, required a variety of corporeal experiences of nature. Tang points out rightly how the first sense a human being de-

319 Tang 2008, 59–60.

320 The eighteenth-century art historian Jacob Burckhardt (1818–97) claimed that the landscape emerged as an aesthetic idea in the Italian Renaissance. In the following century, it was actually formed into an autonomous pictorial genre, and thus the seventeenth century has been called the Golden Age of the landscape. This was actually the time when the notion of landscape shifted from the implementation of an objective illusion towards an expression of a subjective experience. Aesthetic theory merged with cultural geography, and art was recognised as a product of cultural history, which was believed to be determined by nature. Johann Joachim Winckelmann (1717–68) stressed the importance of the Mediterranean environment for the development and quality of ancient art. Herder developed his ideas on the impact of environment in his *Ideen zur Philosophie der Geschichte der Menschheit* (1784–91). For him, seas, rivers and mountains constituted the most natural boundaries of nations, manners, languages and kingdoms. At the same time, they were much more than just physical boundaries, as the terrain had an impact on the development of the mind by shaping personality and the quality of thoughts. For Herder, the key concept was *Klima* which included not only climate, but also houses, food and drink, clothing and culturally distinctive surroundings. Burckhardt 1999 [1860], 209; Mitchell 1993, 3–4. For the historical development of the concept *Klima*, see König 1997, 115–123; Mitchell 1993, 135–136.

velops is the tactile sense. In the eighteenth century, vision became challenged by the sense of touch, or feeling, in an aesthetic experience. In the 1770s, Herder wrote several aesthetic and epistemological treatises putting forward the idea that touch was the primary sense in perceiving the world. With the help of the tactile sense, the body takes over the whole of nature and reproduces it in a subjective experience. Herder compared this to the sense of sight, which only created distance and reduced nature to a flat surface with no colours, no imagination. He passed on these ideas to the young Goethe, who tried to put them into practice in his poetry.[321] Herder did not, however, accept environmental determinism, in which the physical environment has an effect on human culture and activities. Instead, he thought that the relationship between humans and nature was reciprocal, and therefore both had an impact on each other.[322] However, many of the landscape artists were influenced by environmental determinism, and it led them to pay even more attention to topography and, in particular, to mountains, boulders and rocks. But other elements of landscape, such as clouds, trees and vegetation, also became subjects of careful study.[323]

Herder's notion of the tactile sense as the foundation of landscape images, nonetheless, gave way to a new orientation around the turn of the century and, instead, the spiritual vision as the animating principle of landscape gained ground. There were two approaches within this new orientation: Goethe's idea of 'eye of the mind', and the Romantic idea of the spiritual eye. According to the former idea, natural phenomena are conceived as organic entities, and the whole of nature as an organic process. The latter, in comparison, is capable of seeing through the meaning of nature. Hence, it coincides with the notion of *Naturphilosophie,* in which natural phenomena and the soul are continuous. But in order to capture a picture of nature as such, the artist and nature must be animated by the same spirit. Earlier in the eighteenth century, the goal of painting had been defined as imitation of nature, but now it was expected that the landscape would express the feelings of the subject. As a consequence, new aesthetics in landscape art and poetry were introduced and, together with a theory of subjectivity, they had a major impact on the emergence of geographic science.[324]

Friedrich Schiller's treatise on landscape poetry, *Über Matthissons Gedichte* (1794), played a key role in the introduction of these new landscape aesthetics. In this treatise Schiller differentiates between two types of landscape. On the one hand, the landscape constitutes the place,

321 Tang 2008, 70–71.

322 Tiitta 1994, 17.

323 Mitchell introduces Joseph Anton Koch (1768–1839) as one of the early leading representatives of this approach. For this, see especially the chapter *The Influence Nature Exercises Over Nations*. Mitchell 1993.

324 Tang 2008, 77–78.

or the setting, for a historical event, while on the other, it becomes autonomous, or the main thing itself.[325] Tang discusses how Schiller, however, realised certain problems with the employment of these new ideas. For one thing, the landscape descriptions had difficulties in achieving aesthetic effects, because everything seemed to be governed by chance in the natural world. Moreover, natural phenomena did not excite the same sensations and associations in all of the spectators and readers. Thus, the aim of landscape art was defined as the establishment of a necessary relationship between natural phenomena and the subject. Here the artist was supposed to create a landscape consisting of natural phenomena that would arouse certain kinds of feelings. This structure would be reconstituted in the gaze of the spectator, or reader, making the landscape doubly subjective in terms of aesthetic production and reception. Additionally, Schiller made a distinction between two modes of landscape: in a landscape representing feelings, which follows the laws of music, the subject operates purely with the visual appearances of natural phenomena compiled according to their relationships to one another to gain a certain harmony, tone and modulation. By contrast, in a landscape representing ideas, the structure of visual images of natural phenomena refers allegorically, for example, to the harmony of shapes, tones and light.[326] Following Schiller's analogy between music and landscape, the attunement (*Stimmung*) was turned into a key concept in landscape aesthetics. It represents a subjective condition or disposition evoked by the structural unity of natural phenomena and originates ultimately in the subject, and a landscape including a musical effect was called a landscape of mood, a *Stimmungslandschaft*. In the field of natural sciences and geography in particular, Humboldt supported this theory of *Stimmungslandschaft*, whereas his colleague Ritter preferred the theory of allegorical landscape. Humboldt's interest in landscape aesthetics, which will be discussed next, started at an early stage of his career. In 1794, he was already corresponding with Schiller about how the aesthetic sense of landscape should be combined with the study of nature.[327]

HUMBOLDTIAN LANDSCAPE AESTHETICS

As stated earlier, the Romantic Movement in the arts around 1800 impressed Humboldt and he valued landscape poetry and painting, so he also became interested in landscape aesthetics. As to Humboldt's personal

325 Busch notes that Schiller did not discover the autonomous landscape alone, but it emerged at the same time with the theories dealing with the *sublime* and *picturesque*. Busch 1997, 231–232.

326 Tang 2008, 78–79.

327 Tang 2008, 83, 93; for Schiller's conception of nature and its relation to landscape, see also Baumgärtel 1995, 23.

taste, he seemed to adhere to the classical tradition in landscape painting as he was fascinated by seventeenth-century art, which he described as 'the happy period of the development of art', and admired the works of Claude Lorrain, Salomon and Jacob Ruysdael, Gaspard Dughet and Nicolas Poussin especially. In addition, Jacob Philipp Hackert's ideas concerning prototypes of trees inspired him when developing his own physiognomy of trees, as discussed earlier. In contrast, Humboldt left many remarkable artists of his own time unmentioned, such as Joseph Mallord William Turner or John Constable.[328] In his youth, Humboldt had learnt to make engravings, and on his trips he made sketches of mountains, plants and animals. After his return to Europe in 1804, Humboldt visited his brother Wilhelm in Rome. There he employed German artists residing in Rome at the time, such as Joseph Anton Koch, Gottlieb Schick (1776–1812) and Friedrich Wilhelm Gmelin (1760–1820), to create landscapes for his travel atlas, *Vues des Cordillères* (1813), on the basis of the sketches he had made on his expedition.[329] Thanks to Humboldt, it was possible for many artists to sell and to exhibit their works.[330]

It also noteworthy that Humboldt was more of an empirical scientist and less inclined to philosophical speculation, and yet he combined the empirical observation of Earth's topographic features with an artistic depiction of the landscape. Michael Dettelbach regards Humboldt as an heir to Enlightenment empiricism who was redefining the authority of the philosopher and thus reconstructing experimental philosophy as analysis. Thus it was not about compiling maps in geography, but rather developing one's own vision of nature.[331] In a way, he introduced landscape aesthetics into science. The main concept 'landscape', *Landschaft*, referred not only to a concrete area, but also to the picture of the area obtained through observation.[332] And if we consider landscape from today's point of view, it constituted the ecosystem between organisms and their environment for Humboldt, as stated by Tang.[333] As an example of this, Humboldt's atlases, along with his topographical maps of Mexico and the New World, contain thematic maps, which he actually revolutionised. In his investigations, Humboldt focused not only on the biosphere, but rather extended his ecological approach to the human sphere, too. Thus, Tang suggests that, in the same way that Humboldt's *Landschaft* 'designates the balance between human society and its terrestrial nature', the balance between human society and its terrestrial environment could be

328 Humboldt 1852, 89, 95; Diener 1999, 139; See also Mattos 2004.
329 Löschner 1982, 249; Busch 1997, 251.
330 König 1997, 200.
331 Dettelbach 2001, 12,17.
332 Granö 1996, 47.
333 Tang 2008, 170.

called a 'cultural landscape' that is neither subjective nor objective, but surpasses the division of man and nature.[334]

Humboldt's own experience of tropical nature made him respect landscape painting in particular, and as a result, he developed the idea of scientific aestheticism, which was directed towards artists.[335] For him, it was primarily tropical nature that had made an intensive aesthetic experience of nature possible. Consequently, he stressed how nature had to be felt.[336] His unified vision of art and science brought together the sensuous and the objective. The varying and colourful nature of the tropics, with its associated characteristics, or the volcanic landscape showing the dynamics of natural forces, could even intensify this experience of nature. The aesthetic pleasure derived from this experience, nonetheless, required analytical comparison and the observation of optical particularities, together with the recognition of causal connections.[337] As discussed earlier, Humboldt presents his aesthetic ideas concerning landscape painting and his vision of how to depict nature in art first in *Views of Nature*,[338] and later in *Cosmos,* in which he defined it as:

> *Description of nature, I would again observe, may be defined with sufficient sharpness and scientific accuracy, without on that account being deprived of the vivifying breath of imagination. The poetic element must emanate from the intuitive perception of the connection between the sensuous and the intellectual, and of the universality and the reciprocal limitation and unity of all the vital forces of nature.*[339]

This indicates how, for Humboldt, landscapes were not only supposed to represent some sharp and accurate imitations of nature, but they should also express an intellectual ideas of the artist.[340] Humboldt's aim was to represent views of nature in a graphic, aesthetic and scientific way. For him, whether a painting, a poem or a scientific study, they all composed a picture of nature, *Naturgemälde*.[341] Humboldt's notion of *Naturgemälde*, combining aesthetics and science, is manifested in his representation of the profile of the Andes, *Geographie der Pflanzen in den Tropen-Ländern; ein Naturgemälde der Anden* (1807). This picture introduces a cross section of the mountains Cotopaxi and Chimborazo with scientific parameters indicating, for instance, the boiling point of water according to

334 Tang 2008, 175.
335 Löschner 1982, 247.
336 Humboldt 1969 [1849], 5; König 1997, 197; Tang 2008, 83.
337 König 1997, 197.
338 Humboldt 1969 [1849], 73–74, 86.
339 *Naturbeschreibungen, wiederhole ich hier, können scharf umgrenzt und wissenschaftlich genau sein, ohne daß ihnen darum der belebende Hauch der Einbildungskraft entzogen bleibt. Das Dichterische muß aus dem geahndeten Zusammenhange des Sinnlichen mit dem Intellectuellen, aus dem Gefühl der Allverbreitung, der gegenseitigen Begrenzung und der Einheit des Naturlebens hervorgehen*. Humboldt 2004 [1845–1862], 223–224; Humboldt 1852, 81.
340 Diener 1999, 142.
341 Löschner 1982, 246.

13 ALEXANDER VON HUMBOLDT (ARTIST)
AND LOUIS BOUQUET (ENGRAVER)
Geography of Plants in Tropical Countries. An image of nature in the Andes, 1807
copperplate, watercolour
370 x 805 mm
© SHK/Hamburger Kunsthalle/bpk
Photo: Elke Walford

height and air pressure, as well as the occurrence of animals, insects and plants.[342] It also puts into practice how essential Humboldt's personal experience of the place was in order to achieve a total impression. Later in his *Views of Nature*, Humboldt stressed the study of the physiognomy and, correspondingly, the characteristics of a particular place. When defining the characteristics, he paid attention to the outer appearance of phenomena, such as colour and shape. Humboldt applied this approach when creating his physiognomy of plants, in which he reduced the number all of plants on Earth into 16 different groupings, following Goethe's morphological principles, as stated earlier in this study. Within these prototypes, he made a distinction between plants growing separately from other individuals, and plants growing in large communities.[343]

Generally, Humboldt's aesthetic notions reflected the ideas of the first decades of the nineteenth century, but were based on classical tradition.[344] Hence, they reverberated with the ideas of Edmund Burke and Kant, and for Humboldt, the sensation of the *sublime* was originated in a close affinity with nature, and experience of the *beautiful* was derived from observation of the characteristics of the landscape. Aesthetic pleasure was aroused by '[…] the peculiar physiognomy and conformation of the land, the features of the landscape, the ever-varying outline of the clouds, and their blending with the horizon of the sea […]'.[345] However, he disagreed with Burke on the influence of scientific knowledge on the enjoyment of nature, as he thought that it did not diminish it.[346] Following Hegel's philosophy as to the connections between mind and external phenomena, he also stated in the first volume of *Cosmos* that 'the activity of the mind exercises itself on the elements furnished to it by the perceptions of the senses'.[347]

For Humboldt in general, the unification of art and science constituted an intrinsic part of his conception of nature, but his aesthetic ideas about landscape are somewhat ambiguous. Consequently, historical assessments of him have regarded him both as a representative of Enlightenment empiricism, but also of idealism and Romanticism. Early biographers wanted to see Humboldt as 'a bastion of empiricism', who conducted careful experiments and observations. Similarly, the concept 'Humboldtian Science' has referred to a systematic and precise measurement of as many physical parameters as possible.[348] According to recent historiographical developments, Humboldt's encyclopaedic project has been seen as rest-

342 Richter 2009, 104–106; See also Busch 1997, 252 and Mattos 2004.
343 Humboldt 1969 [1849], 66–88; Tang 2008, 84–86.
344 Diener 1999, 142.
345 Humboldt 1852, Vol. 1, 26; citation from Bunkśe 1981, 139.
346 Humboldt 1852, Vol. 1, 40; citation from Bunkśe 1981, 138.
347 Humboldt 1852, Vol. 1, 76; citation from Bunkśe 1981, 139.
348 Dettelbach 2001, 9–10.

ing on his commitment to empiricism, and yet having connections with the early Romantics.[349] As for Humboldt's philosophical approach, he has been seen as being indebted to Kant's transcendental philosophy; but his dynamic sensibility towards experimentation, on the other hand, was shared by F. W. J. Schelling and his *Naturphilosophie*, although Humboldt was not a Naturphilosoph. His opinion of *Naturphilosophie*, in fact, varied from time to time.[350]

Humboldt's influence on landscape aesthetics had spread widely by the mid-nineteenth century and, as a consequence, a topographic representation of landscape was replacing the earlier ideal approach based on composition.[351] This also coincided with the time in which landscape painting became very popular. Correspondingly, I suggest that this development can be seen in the artworks of Düsseldorf landscapists. Since the 1820s, there had been an increasing market for picturesque landscape in the form of panoramas and mountain views. This development is also seen in Britain and in the States in the 1840s and 1850s. For instance, the writings of John Ruskin (1819–1900) on landscape followed Humboldt's formulations in many respects, even though, Ruskin's writings were based on a Christian approach. Ruskin shared Humboldt's appreciation of natural scenery as a stimulus for imagination, exploration and scientific knowledge.[352] But for him, an artist's scientific observation of nature served as a means to search for the revelation of God, whereas Humboldt's literary work completely omits religious dogma, as has been stated by several scholars. In his youth, Humboldt wrote about vitality and life force, *Lebenskraft*, in an allegorical fable in his pursuit of the force behind nature's unity, but this was by no means divine.[353] It is noteworthy that Ruskin shared not only Humboldt's interest in geology, but also in botany and mineralogy, as well as recognising the importance of geology for landscape painting. This was by no means a coincidence, because he had studied geology in order to become a geologist and, with an aspirant's goal in his mind, started working on a 'Mineralogical Dictionary'.[354] In his writings, Ruskin promoted a faithful geological representation of landscape, thus rejecting the formulaic composition that had been used according to the principles of the *picturesque*, the *sublime* and *beautiful*. Instead, he argued that the paintings and drawings should be scientifically accurate, hence reflecting the work of God.[355] In the course of the nineteenth century, especially during the second half, the development of the

349 Dettelbach regards Humboldt's empiricism in his youth as late-Enlightenment 'Baconianism', and as such to be closer to the English physician Erasmus Darwin. Dettelbach 2001, 11, 14.

350 Dettelbach 2001, 10, 18–19.

351 König 1997, 201.

352 Ruskin's theories were published in popular periodicals in the USA. Wagner 1988, 153; Lubowski-Jahn 2011, 329.

353 Lubowski-Jahn 2011, 321.

354 In his study of Turner's art, Ruskin's main interest lay in Turner's representation of geological motifs. Wagner 1988, 151. For the fascination in the Alps, see also Maringer 2008, 341–365.

355 Wagner 1988, 152; Lubowski-Jahn 2011, 323.

empirical approach in natural sciences led to specialisation and objectivity. As a consequence, the Humboldtian notion of landscape was condemned as unscientific and subjective; thus it was abandoned, but it remained for a longer period in the arts, gaining more realistic and naturalistic features.[356]

At the same time as the turn of events in Germany at the end of the eighteenth century, as described above, a vivid aesthetic debate concerning nature and the visual qualities suitable for painting also took place in Britain, along with the growing expansion and appreciation of landscape art. In this debate, the concepts of the *sublime*, the *picturesque* and the *beautiful* flourished and were widely discussed.[357] As a consequence, the old doctrine of *ut pictura poesis*[358] was abandoned, and it became questionable whether painting and poetry could be compared at all. Since the Renaissance, painting had outranked poetry, but this hierarchy was reversed by Gotthold Ephraim Lessing (1729–81) in Germany, and Edmund Burke in Britain.[359]

Burke's *A Philosophical Enquiry into the Origin of our Ideas of the Sublime and Beautiful* (1757) had a great influence on aesthetics in Europe and North America.[360] Moreover, the British *picturesque* movement was initiated by the writings of Rev. William Gilpin, who encouraged people to 'picture-imagine' while travelling.[361] This was then further developed into an abstract aesthetic theory dealing with *picturesque* sensibility by Richard Payne Knight and Uvedale Price. The ideas of the philosopher Archibald Alison, who was Knight's mentor, provided a philosophical background to the movement, and he suggested that the art of gardening carried similarities to the art of landscape painting.[362]

Indeed, this was a time when the appreciation of natural scenery and the empiricist aesthetic emerged. In the development of these concepts, the experiences of the British aristocrats making Grand Tours through the

356 Granö 1996, 48.

357 Klonk has compared the emergence of these aesthetic qualities in an artist's work to the scientist's inference from visible structures to a taxonomical order. Klonk 1996, 6–7.

358 According to *ut pictura poesis*, painting and poetry are understood in terms of an idea they represent, and these ideas are represented allegorically, where nature is also understood as a concealed allegory. Poetry and painting share a common set of classical images and symbols that can also be found in nature; hence, classical language takes a more natural and expressive approach, and through this, nature is no longer a carrier of allegorical meaning. This brings about a shift from idealisation to sensibility. Townsend 1997, 366–367.

359 Mikkonen 2005, 96–105.

360 For Burke, the *sublime* was connected with pain, and the *beautiful* with pleasure. On the one hand, it was the landscapes of Salvator Rosa (1615–73) depicting wilderness that were associated with the *sublime*, and thus with man's appreciation of the grandeur and violence of nature and its phenomena, emphasising the ideas of awe, ruggedness, vastness and terror. On the other hand, the artworks of Claude Lorrain typified the *beautiful* in the landscape. According to Burke, the *beautiful* comprises the antithesis of the *sublime* with its delicacy, smoothness of contour and submissiveness – qualities that are related to the feminine. Burke, moreover, worked on a cause-and-effect basis between the object and the perceiver: the feeling of terror, which Klonk defines as the main ingredient of the *sublime*, started with an external impact, which the mind then suggested as a danger to the body. This caused tension in the bodily organs, but it was followed by a feeling of delight, which finally brought about the sensation of the *sublime*. Andrews 1999, 132–133; Klonk 1996, 13–14.

361 Gilpin's aim was to find scenes that would look good in a picture, but he did not restrict the concept to landscape aesthetics only. Klonk 1996, 10.

362 The notion of the *picturesque* was established to create a category between the *beautiful* and the *sublime*, and it was widely used in the context of picturesque parks and gardens. The aesthetic of the *picturesque* has also been described as a kind of prelude to Romanticism, and it is said to have been a British reaction especially to the Romantic attitudes prevailing in Europe after Jean-Jacques Rousseau. Both Knight and Alison connected their theory with subjective association, whereas Price tried to make the *picturesque* an objective abstract category. The supporters of the *picturesque* found pleasure in roughness, irregularity and curious details, and *picturesque* aesthetics in the depiction of landscape in the eighteenth century manifested the appreciation of the visual features in a rural landscape. Accordingly, the social flaws of the countryside faded away. *Picturesque* theory had its origins in the debates over the relationship between poetry and painting under the tenet *ut pictura poesis* in the seventeenth and early eighteenth centuries. Häyrynen 2005, 158, 161; Townsend 1997, 366–67; Klonk 1996, 156, footnote 8; Batey 1994, 121–22.

Swiss Alps to Italy played an essential role.[363] The results of this development were evidenced in landscape gardening, tour guides and travel literature as we shall see here next. In Britain, nonetheless, the aesthetic values described earlier were gradually abandoned between 1790 and 1830, when attitudes towards the appearance of the natural world changed, and accordingly the pictorial formulae leaning on the *sublime*, the *picturesque* and the *beautiful* were replaced by a more phenomenalistic mode of perception, as stated by Klonk.[364]

GRAND TOURS AND ILLUSTRATED TRAVEL ACCOUNTS

> *But, even in the present imperfect condition of the pictorial delineations of landscapes, the engravings which accompany and too often disfigure, our books of travels, have, however, contributed considerably toward a knowledge of the physiognomy of distant regions, to the taste of voyages to the tropical zones, and to a more active study of nature.*[365]

The discussion earlier concerning the aesthetic values of landscape, whether in Germany or Britain, was very closely related to travelling and the Grand Tours that constituted part of the upbringing and education of the upper class in the eighteenth century, and remained fashionable during the first half of the nineteenth century.[366] Grand Tours were made for pleasure, sophistication and self-development. Usually these trips are associated with the British aristocracy, but they became popular in other countries of Northern Europe, too. One source of inspiration for these tours was Goethe's travel diary, *Italienische Reise (Italian Journey)*, which describes his Grand Tour to Italy (1786–88).[367] Hence artists in Finland, whether siblings of better-off families or funded by private or state grants, also followed in the footsteps of Goethe. In addition, travel guides, such as those by Baedeker in Germany and Murray in England, were published to meet the growing interest in cultural travel and landscape tourism. These guides not only referred to the

363 This can be seen especially in how the meaning of the *sublime* changed: instead of referring only to something frightening, as seen before, it started also to express delight in the experience of horror. This followed the ideology of physico-theology, too, because the mountains – which were regarded as God's Creation – could not just arouse negative connotations. Additionally, it was essential that emotions and understanding, or knowing, were combined in order to achieve the experience of the *sublime*. Later understanding was not necessary anymore, as one could achieve the experience without thinking of God. Actually, the paradigmatic examples of the *sublime* and *beautiful* stem from the seventeenth century. Trepl stresses the role of the educated British noblemen here, such as John Dennis (1657–1734), Anthony Ashley-Cooper, the 3rd of Earl of Shaftesbury (1671–1713) and Joseph Addison (1672–1719). Dennis even listed the cosmos, the celestial bodies, seas, streams and mountains as sublime elements in nature. Trepl 2012, 107–108.

364 Klonk 1996, 67.

365 *Aber auch in dem jetzigen unvollkommenen Zustande bildlicher Darstellungen der Landschaft, die unsere Reiseberichte als Kupfer begleiten, ja nur zu oft verunstalten, haben sie doch nicht wenig zur physiognomischen Kenntniß ferner Zonen, zu dem Hange nach Reisen in die Tropenwelt und zu thätigerem Naturstudium beigetragen*. Humboldt 2004 [1845–1862], 233; Humboldt 1852, 97.

366 The routes the Grand Tours followed mostly led through picturesque countryside to the cultural centres in Holland, France and Italy. On their way, travellers often had a chance to see impressive mountain areas, such as the Alps. As photographs were not available yet, landscape paintings in the form of *vedutas*, for instance, served as substitutes. In Britain, for example, there was a steady demand for landscapes painted by continental masters in the wake of these tours. Klonk 1996, 9.

367 The beginning of Goethe's route led through the Alps, and in his travel diary he writes about the colours, the forms and structure of the mountains, as well as different kinds of rocks he saw. In the context of the mountains, Goethe also writes about the climate, the atmosphere and the humidity, as well as the flora, using Linnean terminology. Here it is noteworthy that Goethe talks in the same spirit as Humboldt about the influence of height on the diversity of plants on the mountains. In Italy, Goethe was enthralled by volcanoes and lava; he even climbed Vesuvius with the artist Johann Heinrich Wilhelm Tischbein (1751–1829) to study its volcanic activity more closely. Goethe, 2010 [1981, 1786], 19, 20, 192–195. Nicolai, 1977 [1960], 280–281.

representation of historical monuments, but also mentioned *picturesque* and *beautiful* landscapes worth visiting. These guides were eagerly read by Finnish artists too.[368]

Even before embarking on his Grand Tour, Goethe had undertaken a trip to Switzerland with the brothers Friedrich Leopold and Christian Stolberg in 1775, and tried to depict the mountains using an empirical approach, in other words, to free himself from the generalised pictorial tradition and instead sketch the mountains faithfully, paying attention to the details and peculiarities of the area.[369] Although Goethe was not a naturalist or a scientist in the modern sense, he took great interest in the natural history of the time, combining different fields of interest in the description of the mountains he had seen. The Grand Tour did not appear in Goethe's poetry immediately, but it broadened his conception of the natural sciences, which can be noted in several writings.[370] In his writings in general, Goethe dealt with meteorology and botany, but also geography and geology. After his trip, Goethe's interest in mineralogy continued, and he visited the mineralogist Abraham Gottlob Werner in Freiberg on 16 September 1789.[371] Later on, Goethe's interest in geography and geology was reflected in his poetry, too. As Claudia Mattos has stated, Goethe's encounter with the artist Jacob Philipp Hackert in Italy on his Grand Tour played an important part in his understanding of the relationship between art and science and how to integrate the two. Further, these ideas had an impact on Humboldt's thinking about the representation of landscape. One of the key points was to study the details and parts of the landscape individually to be able to create a rich and many-sided view in the finished picture.[372]

The Grand Tours are closely connected with the emergence of illustrated travelogues which, along with ever-growing landscape tourism, not only inspired artists, but also provided them with work.[373] In her *Voyage into Substance* (1984), Barbara Stafford discusses illustrated travel accounts, later known as the *voyages pittoresques,* many of which were published between 1760 and 1840, a period which she defines as their heyday.[374] In fact, it is interesting to notice that this period more or less coincides with T. F. Mitchell's study of the relationship between German art and science 1770–1840. But apart from making travelogues, there existed a desire to discover. Many of the illustrated travel accounts actually describe voyages and expeditions with a focus on natural history, because they were written

368 Jokinen & Selkokari 2011, 10.

369 Borchmeyer 2005, 46–47; Stafford 1984, 46.

370 Goethe wrote about mineralogy and geology, comparing the ideas of Neptunism and Vulcanism to the emergence of basalt. In *Faust*, he even had Mephistopheles and Faust discuss the emergence of Earth when they took a stand for or against Neptunism and Vulcanism. Goethe was also interested in the nature of granite and described its various features. Borchmeyer 2005, 68; Goethe 1977 [1793], passim. 204–223.

371 Nicolai, 1977 [1960], 281.

372 Mattos 2004, 148, 152.

373 The illustrated travelogues have a long history, starting in the sixteenth century, when they depicted topographic views of the areas surrounding Dutch cities, and there is an interesting combination of art and science in them. Both Svetlana Alpers and Malcolm Andrews have written about the relationship between topography and Dutch landscape painting. See Alpers 1983, 119–168; Andrews 1999, 77–94.

374 The heyday of travelogues also coincides with the transition from Enlightenment ideas to Romanticism. Moreover, this is the time when Herder introduced the idea that Earth, or the globe, was the stage for the history of mankind, and therefore it was not possible to write about history without geography. Stafford 1984, xix; Tiitta 1994, 17.

as a result of scientific voyages. Stafford claims how in the case of a picturesque traveller, or more precisely a tourist, it was primarily a question of tours expressing intuitive emotions, whereas a scientific traveller aimed at observing nature that was alien to him. Hence, the task of a scientific traveller was to perceive eagerly, to judge and be loyal to the facts in order to gain knowledge.[375] In his citation above, Humboldt notes how illustrated travelogues and the engravings they included influenced people's ideas about distant places. Before the introduction of photography, most of the illustrations in the travel accounts were engravings or lithographs, and their purpose was to explain and to illuminate the text.[376] Hence, their task was simply to depict a specific view in an identifiable way. In Finland and Norway, illustrated travel accounts were used to attract interest and to spread information about the countries; thus, they served the purposes of growing nationalism, too. It is also noteworthy that local artists were encouraged to make pictures for them.

REISEKÜNSTLER OR TRAVELLING ARTISTS

> *The delineation of natural objects included in the branch of art at present under consideration [seventeenth-century landscape painting] could not have gained in diversity and exactness until the geographical field of view became extended, the means of travelling in foreign countries facilitated, and the appreciation of the beauty and configuration of vegetable forms, and their arrangement in groups of natural families, excited.*[377]

The end of the eighteenth century saw the birth of travelling illustrators known as *Reisekünstler*, who worked for naturalists on their expeditions.[378] This tradition of artists and naturalists working together was developed further into a genre of landscape art with aesthetic qualifications by Humboldt, who has been regarded as the founder of this new genre. Thanks to his ideas, the role of illustrations realised from nature became more important and, correspondingly, illustrators started to see themselves as artists. And as we have seen earlier, Humboldt even urged artists to travel further than the Mediterranean to the humid valleys of tropical areas in order to depict their multifaceted nature: it was the tropical areas in Latin America that offered the ideal motifs for landscape painting.[379] In *Cosmos*, he de-

375 Stafford 1984, 4–5.

376 Stafford 1984, 51.

377 *Die Darstellung individueller Naturformen, den Theil der Kunst berührend, welcher der eigentliche Gegenstand dieser Blätter ist, konnte an Mannigfaltigkeit und Genauigkeit erst dann zunehmen, als der geographische Gesichtskreis erweitert, das Reisen in ferne Klimate erleichtert und der Sinn für die relative Schönheit und Gliederung der vegetabilischen Gestalten, wie sie in Gruppen natürlicher Familien vertheilt sind, angeregt wurden*. In this context, Humboldt stresses the importance of the previous discoveries made by Columbus, Vasco da Gama and Alvarez Gabral. Humboldt 2004 [1845–1862], 229; Humboldt 1852, 90.

378 The English artist William Hodges (1744–97) was employed on James Cook's second trip around the world (1772–75). His task was to document the trip, but he also made some landscape studies on the journey. Hodges was a friend of Thomas Jones. Another English artist John Webber (c. 1750–93) participated in Cook's third trip to Oceania (1776–80). Gunnarsson 1989, 27; König 1997, 183.

379 Humboldt 1852, 93; Diener 1999, 137.

scribed the task of the traveller as one who provides information, but also as inspires others:

> *I have here attempted to indicate the direction in which the power possessed by the observer of representing what he had seen, the animating influence of the descriptive element, and the multiplication and enlargement of views opened to us on the vast theatre of natural forces, may all serve as means of encouraging the scientific study of nature, and enlarging its domain.*[380]

In the same context, he expressed his admiration for Georg Forster (1754–94), his friend and teacher, describing him as 'gifted with delicate aesthetic feelings' and 'the first to depict in pleasing colours the changing stages of vegetation, the relations of climate […]'.[381] Despite Humboldt's importance in introducing the idea of *Reisekunst* and *Reisekünstler*, he was not the first to employ artists as illustrators on expeditions. For example, the Spanish botanist José Celestino Mutis (1732–1808), who lived in Santa Fe de Bogotá, had made a botanical expedition to the kingdom of New Granada. While travelling there himself, Humboldt actually had the chance to meet Mutis and see his collections.[382] Mutis was keen to record visually the plants he had collected on his expeditions, and in 1783 he started a studio with 19 artists for illustrating different plants had collected. Later, he even started a drawing school with journeymen and apprentices to support his studio. Humboldt was also well informed about the expedition arranged by Alessandro Malaspina (1754–1810) to the Spanish colonies, 1789–94, and also about his need for illustrators.[383]

However, the employment of artists as illustrators on expeditions was not trouble-free and this actually raises the question of the artists' role and importance on such expeditions. According to the naturalists, the artists' job was to illustrate plants, animals and topographic features as accurately as possible but this meant that the artists' independence could be neglected at the expense of scientific values. Conversely, Humboldt appreciated the artistic qualities of the illustrations, as well as their documentary value.[384] Humboldt had direct influence on several German artists, one of them being Johann Moritz Rugendas (1802–58), whom he met in Paris in 1825. Humboldt even advised Rugendas to look for landscapes where differences in altitude created clear contrasts. The artists travelling

380 *Ich habe hier die Richtung zu bezeichnen versucht, in welcher das Darstellungsvermögen des Beobachters, die Belebung des naturbeschreibenden Elements und die Vervielfältigung der Ansichten auf dem unermeßlichen Schauplatze schaffender und zerstörender Kräfte als Anregungs- und Erweiterungsmittel des wissenschaftlichen Naturstudiums auftreten kön*nen. Humboldt 2004 [1845–1862], 223; Humboldt 1852, 79–80.

381 […] *mit einem feinen ästhetischen Gefühle begabt* […] […] *schilderte* [Georg Forster] *zuerst mit Anmuth die wechselnden Vegetationsstufen, die klimatischen Verhältnisse* […] Humboldt 2004 [1845–1862], 223; Humboldt 1852, 80.

382 Wulf 2015, 77–78.

383 Diener 1999, 146; See also Diener 2008.

384 Diener 1999, 144–146.

in South America, such as Rugendas, Ferdinand Bellermann (1814–89) and Berg, looked to Humboldt's writings for guidance, which is also manifest in their artworks. For instance, in their sketches of single plants we can detect allusions to Humboldt's notion about illustrating plants in their natural environment – and not only that, for the artists also integrated several motifs they had collected into a panorama of a tropical forest.[385]

IN PURSUIT OF NORWEGIAN MOUNTAINS

At the beginning of the nineteenth century, there was a clear connection between scientists and landscape artists, as they seem to have worked side by side on mountain expeditions. In Germany this relationship between art and science had started to develop at the beginning of the century in Dresden, and a new area to be discovered was the Norwegian mountains. In the field of sciences, the Norwegian mountains, or the Norwegian Alps as they were often referred to, had been discovered as a geographical area, but it was still rather unknown territory in the arts. Different routes crossing the Norwegian mountains had existed for centuries, but a true fascination with the mountains began in the late eighteenth century when the Norges Geografiske Oppmåling (Geographical Survey of Norway) was founded in 1773.[386] This was followed by Selskabet for Norges Vel (The Royal Norwegian Society for Rural Development) in 1809. In general, this was a time when scientific study of the mountains started, and several expeditions took place in the following decades.[387] This development was also promoted by the foundation of the Royal Frederick University in 1811, which for its part paved the way for natural sciences.[388] Although my main focus is on Finnish artists, it is important to discuss the artistic discovery of Norway and Norwegian mountains here. While this development took place earlier in time, it nevertheless had a greater impact, first in Dresden and later in Düsseldorf. In Finnish art-historical writing about Düsseldorf, as in the case of Werner Holmberg, interest in the Norwegian mountains and Nordic views is usually only briefly mentioned as representing the shift in subject matter from southern to northern landscapes, without discussing why this change took place. Usually it is connected with Andreas Achenbach and his trips to Sweden in 1835 and Norway in 1839.[389] As such, it has been regarded as a part of Romantic movement and ideas. But what made Achenbach travel to Sweden and Norway? And why did he choose to depict certain motifs? I would suggest that the inter-

385 Diener 1999, 147–149; see also König 1997, 200.

386 Norway became a really popular travel destination, and by the year 1900 there were already 2000 travel accounts describing the country. These are all listed in Eiler H. Schiøtz' *Utlendingers reiser in Norge* (1970/1986). Sørensen 2001, 30.

387 One of the first to make measurements using a barometer and to collect plants was the Norwegian botanist Christen Smith (1785–1816) in 1810. He was followed a few days later by the geologist Jens Esmark (1763–1839). Smith made expeditions to the Hardanger plateau (Hardangervidda) and to the areas between Valdres and Northern Gudbrandsdal, which were later called Jotunheim. Messel 2008, 103

388 Messel 2008, 103.

389 See, for instance, Reitala 1986, 38.

est in northern landscapes in the arts was inspired by the developments in the natural sciences, and in particular geography and geology, and the ideal place for that in Germany was Dresden.

One of the key figures who introduced new ideas concerning natural history in Norway, and thus the Norwegian mountains, was Henrik Steffens, a Norwegian-born philosopher, scientist and poet who spent his adult years in Germany and Denmark.[390] Steffens, who developed an enthusiastic and affectionate relationship with Norway, can be connected with Romantic nationalism in Norway, and his lectures in the years 1802–04 had especially great impact there.[391] Due to his activities in the natural sciences and geography, as well as his interest in nationalism, he can, in this respect, be regarded as a counterpart, though somewhat earlier, for Zacharias Topelius in Finland. Timothy F. Mitchell regards Steffens, who studied at Werner's academy in Freiberg, as a representative of the new Romantic science at the turn of the century.[392] Geognosy constituted the primary example of Steffens's science, and he thought that the world should be observed as a continuous process rather than observing the external forms of the planet's individual parts.[393] For him, the history of Earth represented an inner natural history of Earth and it dealt with dynamic development, which undergoes different stages, finally ending with man.[394]

This area was also studied by the Norwegian geologist and mineralogist Baltazar Mathias Keilhau (1797–1858), whose first visit is recorded in the year 1820, but who might already have been there in 1818 or 1819. Keilhau's discoveries were introduced in the new magazine for natural scientists, *Magazin for Naturvidenskaberne*, in 1823, which attracted a lot of attention. Keilhau illustrated his report from this trip with his own drawings, and later on both the Danish-born artist Johannes Flintoe (1787–1870) and the Finnish officer, landscape artist and cartographer Wilhelm Maximilian Carpelan (1787–1830), as well as Johan Christian Clausen Dahl, are known to have copied or used his drawings as an aid for their own works. Thanks to the article in the magazine, in addition to Keilhau and Carpelan's initiative in mapping Norway, Keilhau's expedition also attracted attention in Dresden, and another German geologist Carl Friedrich Naumann (1797–1873) followed in his footsteps, making extensive research trips to Norway in 1821 and 1822. Two years later, Naumann spread the knowledge about the Norwegian mountains further by publishing his *Beyträge zur Kentniss Norwegens (Contributions to the Knowledge of Norway*, 1824) in Leipzig.[395]

390 Steffens left Norway in 1779, but returned there twice, in 1824 and 1840. On his first trip, Steffens made a tour in the Norwegian mountains with the geologist and mineralogist Baltazar Mathias Keilhau. Sørensen 2001, 167.

391 Sørensen suggests that the enthusiasm and affection that Steffens had for Norway was typical of Norwegians who lived abroad. Sørensen 2001, 83, 165.

392 When developing his idea, Steffens had benefited from Schelling's nature philosophy. Mitchell 1993, 78.

393 Steffens was inspired by Werner's theory of the world's creation through the deposit of sediment under the sea.This idea of layered change gave Steffens the idea that plant and animal life was adapted to the geological foundation, and human culture developed in stages on this landscape scene. Olwig 1996, 641–642.

394 Tang 2008, 116.

395 Messel 2008, 111, 122.

In this context, it is notable that it was not only the events which took place in Norway, but also those in Dresden that played a key role in the discovery of the Norwegian mountains as a subject for landscape painting, and one of the key people in this development was naturally Dahl. Interestingly, however, it was not Dahl, but Johannes Flintoe who started the artistic discovery boom in Norway. Yet what made Flintoe move from Copenhagen to Christiania (now Oslo)? One of the factors at least was his acquaintance with Gerhard Munthe (1795–1876), who was working on a new map of Norway at the time. This acquaintance proved to be fruitful, as Flintoe and Munthe set off on their joint study trip in the mountains in the summer of 1819. Flintoe's role is also remarkable in the sense that he possessed knowledge of different routes and motifs, and by sharing his comprehensive portfolio, as well as his knowledge, he contributed to the discovery of the Norwegian mountains by other artists, too, including Dahl, although we have to remember that every artist made his own choice of routes and motifs.[396]

Apart from the importance of these events for Norwegian landscape painting, there is an interesting connection to Finland here. Around the same time as Flintoe, Wilhelm Maximillian Carpelan made his research trip across the mountains in the western part of Norway.[397] Carpelan had arrived in Norway to serve as an adjutant to the Swedish Count Johan August Sandels (1764–1831), the Governor of Norway 1818–27.[398] In his new post, Sandels was supposed to get to know the country, and therefore he wanted to travel to Bergen, the biggest city in Norway at the time.[399] It has been assumed that on this trip, Carpelan would have met Flintoe, and they would have crossed the mountains to Sogn together.[400] In any case, both Flintoe and Carpelan made several sketches and studies in watercolour of mountain scenery, which they displayed at the exhibition of the Royal Drawing School the following year.[401] Carpelan exploited the drawings from the trip to Bergen later on too, by making aquatints which were printed and published in Stockholm as his *Voyage Pittoresque aux Alpes Norvégiennes* (1821–23).[402]

NORWAY ILLUSTRATED IN DRAWINGS

The travels that the artists and geologists undertook in the Norwegian mountains at the beginning of the century provided material for an il-

396 Dahl contacted Flintoe and Munthe in order to get information on travel routes and suitable motifs. Messel 2008, 126.

397 Carpelan is important here, because he was living in Stockholm at the same time as Magnus von Wright, and it is very likely that they knew each other due to their interest in lithography. Lindström 1932, 9.

398 According to the peace treaty in Kiel, Norway was transferred from Denmark to Sweden in 1814, and from then on it formed a part of the dual kingdom under the new Swedish King Charles XIV John of Sweden (Karl XIV Johan Bernadotte). The Swedish-born officer Johan August Sandels served in the Swedish army and excelled in the war against Russia of 1808–09, thanks to which he was pointed Field Marshall. At the end of his career, he was assigned the Governor of Norway. Sandels became famous due to his role in J. L. Runeberg's classic epic poem *The Tales of Ensign Stål* (published in two parts 1848 and 1860). Syrjö 2000.

399 A part of the road, however, was rumoured to have been destroyed by flooding, and now it was Carpelan's task to check this out. Carpelan made his reconnaissance trip in June, and in the following month he accompanied Sandels on a trip from Christiania to Bergen where they arrived in August. Messel 2008, 105, 108.

400 Nils Messel finds this idea, presented by Flintoe's biographer Henning Alsvik, unlikely. Messel 2008, 105, 108.

401 Ydstie 2002, 40–41; Messel 2008, 108–111.

402 Messel 2008, 122; See also Ervamaa 1998, 936.

lustrated travel account to be published later. In 1846, the enterprising local publisher Christian Tønsberg (1813–97) began assembling a collection of paintings, prints, drawings and watercolours that were reworked into lithographs. The lithographs were published together with texts as *Norge fremstillet i Tegninger* (*Norway Illustrated in Drawings*), which was completed in 1848 and consists of 82 lithographs.[403] Some of the texts were written by Peter Christen Asbjørnsen, but he also used earlier travel reports, such as those by Keilhau or Naumann. The pictures of mountain landscapes start with the first expedition made by Erik Pauelsen in the 1780s, and continue with trips by Carpelan, Fearnley and Gude, but there are no pictures by Flintoe, as he was working on his own travelogue at the time.[404] Tønsberg's travelogue was composed in the same spirit as its Finnish counterpart published by Topelius, and the overall impression of the pictures is very similar. Although *Norge fremstillet i Tegninger* was published as late as the end of the 1840s, its landscape imagery represents a mode of depiction used in earlier decades and thus falls within the category of picturesque travel accounts in general. As a consequence, there are many sublime views from the mountains, but with rather rounded contours; also the rock and stones have the softness typical of picturesque landscapes, and often they look as if they have been placed carefully in the landscape. The depiction of trees, furthermore, follows the same pattern, making the distinction between different species difficult, especially the deciduous trees, whose rounded forms look largely the same. If compared to the original artworks, the landscapes seem to have lost some of their naturalist touch due to their reworking into lithographs.

Besides the mountain views, the travelogue contains several tranquil picturesque sights of Norwegian towns located at sea level, including Christiania, Bergen and Trondheim among others. In addition, several impressive views of rapids with cascading waters enrich the cavalcade of landscapes taking a glance at timber mills and forestry, for example. If compared with Gude's landscapes and studies of the mountains from the 1840s, the difference in the mode of depiction is quite striking, as we shall see in chapter four. His mountains have much more edgy, or rugged contours, and demonstrate a more realistic depiction of atmosphere and light, as well as clouds. Generally, Gude's landscapes look more 'true-to-life', embodying the idiom of detailed realism, or naturalism, as indicated

403 For the digital version, see http://www.nb.no/nbsok/nb/b2a9896e4092cf197cb6ae2ca09b0e40nbdigital?lang=no#0.

404 Messel 2008, 144.

in Düsseldorf. We could also say that they incorporate a similar freshness of phenomenalism which was typical of British outdoor painting at the beginning of the century.[405] As for Schirmer and Lessing's legacy in terms of open-air painting, this was conveyed par excellence to Finnish artists by Hans Gude.

EARLY TRAVELOGUES ILLUSTRATING FINLAND

In Finland, landscape painting is a rather new phenomenon that started properly only in the nineteenth century. It was preceded by landscape graphics, and different versions of travel accounts in the form of the *voyage picturesque* had a great influence on the choice and development of motifs in landscape painting. The first illustrations of Finnish landscapes in travel accounts made by Finnish artists appeared in the nineteenth century, but there are some earlier works made by foreign artists.[406] There was international interest and a demand for Finnish scenery at the end of the 1830s especially.[407] Most of these sights are of southern Finland, with a few from northern Finland and Lapland, which became popular resorts only in the twentieth century when they were facilitated by railway connections. Lapland, nevertheless, was already attracting foreign travellers during the first half of the nineteenth century as a part of the tour of the Nordic countries.[408] It is noteworthy that Humboldt also planned an expedition to Lapland, but he ended up travelling to Siberia instead. Before the picturesque approach, which emerged in the illustrated travel accounts at the end of the eighteenth century, landscapes were mainly depicted from the antiquarian and topographic point of view. This was the case with these early travel accounts representing Finland, too.

The first recognisable topographic travel account representing Finnish sights – along with coats of arms – was made by Erik Dahlberg in his *Suecia antiqua et hodierna* (1716), the purpose of which was to show the grandeur of Sweden.[409] At the end of the century, the French artist Louis Bélanger (1756–1816) travelled from St. Petersburg to Stockholm via Finland, and the results of this journey were published as *Voyage pittoresque de la Suède* in 1802, it is presumed.[410] In 1818, the Baltic-German landscape artist Carl von Kügelgen, commissioned by Tsar Alexander I, arrived in Finland in order to collect landscape motifs for an illustrated travel account of Finland, *Vues pittoresques de Finlande* (1823–24).[411] The aim of this publica-

405 For this, see Klonk 1996, especially chapter four.

406 The French architect, landscape painter and graphic artist Louis Jean Desprez (1743–1804) visited the country in 1785 and 1788–90, making several drawings and some oil paintings. The Swedish count Anders Fredrik Skjöldebrand (1757–1834) published his *Voyage pittoresque au Cap Nord* 1801–02, which included views from Finland. On his trip in 1799, Skjöldebrand also visited the Kyrö Rapids. Skjöldebrand was escorted by the Italian Joseph Acerbi, who published his travel account in Paris in 1803. Acerbi obviously copied some of Skjöldebrand's views for his own publication. Before Acerbi, the English writer Matthew Consett had travelled in northern Finland in 1786, and published his travelogue in 1789. His more famous countryman Edward Daniel Clarke toured the north in 1799–1802. Clarke published his travelogue in several volumes (1816–24), and the one dealing with Finland came out in 1824. Hirn 1988 [1950], 14, 17, 19, 26, 28, 34–38.

407 Grandell & Knapas 2011, XIII.

408 See for instance, *Travels in Norway, Sweden, Finland, Russia and Turkey* (1827) by George Matthew Jones; *Letters from the North of Europe: or a journal of travels in Holland, Denmark, Norway, Sweden, Finland, Russia, Prussia, and Saxony* (1832) by Charles Boileau Elliott; *Travels in various countries of Scandinavia: including Denmark, Sweden, Norway, Lapland and Finland* (1838) by Edward Daniel Clarke.

409 It presented the castle of Häme, the ruins of Kastelholma castle and panoramic views of the towns Vyborg and Tornio. Hirn 1988 [1950], 8. See also Häyrynen 2005, 38.

410 Hirn 1988 [1950], 20–21; Hovinheimo 2011, 9.

411 Von Kügelgen made 55 sepia-wash landscapes, which were published as lithographs in St. Petersburg. Hirn 1988, [1950], 38.

tion was to create a certain kind of public image for Finland in Russia.[412] Consequently, von Kügelgen mostly depicted cultural landscapes from the southern part of Finland, whilst natural landscapes were excluded. In his tranquil landscapes, the spectator's gaze is often directed through a screen of trees and along softly descending hillsides towards the still surface of a lake, above which a sky with puffy cumulus clouds spreads out. In general, von Kügelgen's ideal landscapes represent idyllic, rural and peaceful views, and he was obviously familiar with the open-air painting of his time, as in 1791 he had made the 'obligatory' trip to Rome where, besides copying works of Lorrain and Poussin, he had occupied himself by making studies from nature.[413]

Von Kügelgen's landscapes are said to have made Finns recognise the beauty of their homeland as well as highlighting the lack of artworks depicting Finland.[414] It is also worth noting that von Kügelgen's travel account was published around the same time as the poetry of Johan Ludvig Runeberg, which stimulated patriotic thoughts. This led to demand for further travel accounts, and the first made by domestic forces came out in 1837. It was titled simply *Finska Vuer* (Finnish Views) and published by Fredrik Tengström (1799–1871), Runeberg's brother-in-law, who introduced lithography to Finland. In this account, there are twelve lithographs made by one of the first Finnish landscape artists, Pehr Adolf Kruskopf, who worked as a drawing teacher at the University of Helsinki. In these lithographs, there is an interesting detail in front of Kruskopf's signature: it says explicitly that they were drawn from nature.[415] As to the popularity of the sights depicted by von Kügelgen and Kruskopf, it is worth noting, too, that they both made pictures of the Kyrö Rapids. In fact, it was a copy of Kruskopf's drawing of the rapids that Holmberg used as an aid while making his first Finnish landscape in oil, as discussed in the introduction.[416] If we examine these two artworks by Holmberg in this context, his oil painting of the Kyrö Rapids (1854) still bears similarities to the picturesque approach used in illustrated travel accounts in general. Accordingly, the rapids with rocks on both sides can be seen as representing the *sublime*, and the overall atmosphere as being Romantic. In contrast, the outdoor study in watercolour (1857) with its impression of bright daylight, represents a view which rather falls in the domain of outdoor painting and phenomenalism, and therefore represents quite a different approach to the subject on the whole.

412 Häyrynen 2005, 40.

413 Hirn 1988, [1950], 40.

414 Tiitta 1994, 76.

415 *Ritadt efter Naturen och Lithogr. af P. A. Kruskopf. Tryckt hos F. Tengström*. Hirn 1988, [1950], 49.

416 Due to the popularity of the Kyrö Rapids, there are several artworks depicting this sight. Most of these depict the cataract from the conventional viewpoint, at the foot of it. Holmberg's study from the year 1857, as discussed in the introduction, and an earlier lithograph No. 8 in *Voyage pittoresque de Scandinavie*, presumably made originally by Skjöldebrand, represent the view looking down from the left bank of the rapids. For this, see Hovinheimo 2011, 74–79.

FINLAND ILLUSTRATED IN DRAWINGS

Kruskopf's landscapes foreshadowed the birth of a larger travel account, *Finland framställdt i teckningar* (*Finland Illustrated in Drawings,* 1845–52), which combines both the antiquarian and topographic, as well as the picturesque approach. Several artists provided pictures of landscapes, including Pehr Adolf Kruskopf and Magnus von Wright. It was published by C. A. Öhman, and he employed Zacharias Topelius to write the accompanying texts.[417] *Finland framställdt i teckningar* had a great significance for the depiction of Finnish landscapes in the nationalist spirit of the time. It constituted a model which was followed till the turn of the century.[418] Moreover, it was the first more comprehensive work to be made following Swedish examples.[419] By representing different regions in Finland from a historical[420] and topographical point of view, its purpose was to introduce the sights of Finland to the new rulers in St. Petersburg in a most positive way. It was also published in French and German, but as such it was aimed at a limited audience consisting of the patriotic and educated elite.[421] What is important from the perspective of this study, the purpose of the work for Topelius himself was to give a wide and scientifically extensive description of Finland and its people.[422] Interestingly, he included some natural landscapes from Lapland, although most of the views present cultural landscapes from southern Finland. The natural landscapes, actually, were seen as the common property of all Finns.[423] The emphasis of the travel account, however, lies in the representation of Finnish history in the light of the motifs chosen and texts. This is clearly indicated by the fact that only twenty pictures out of 120 represent places that were famous for being attractive, or beautiful as natural sights.[424] And yet, for this study, it is of special interest that *Finland framställdt i teckningar* had an impact on how Topelius developed as a geographer, because it was actually here that he started to pay attention to geographical phenomena.[425] This will be discussed further in chapter 4 in relation to Finnish landscapes. Topelius also published other books which dealt with landscape and had a great impact on the image of Finland: *Naturens bok* (*Nature's Book*, 1856), *En resa i Finland* (*Travelling in Finland,* 1873) and *Boken om Vårt land* (*A Book about Our Country*, 1875). In addition, he was one of the publishers of *Suomi 19:llä vuosisadalla* (*Finland in the 19th century*, 1893) which was aimed at foreigners and for which he wrote a poetic preface, as well as the first two chapters.

417 Topelius composed most of them, notwithstanding the chapter about Karelia, which was written by H. A. Reinholm (1819–83), a priest and collector of Finnish folklore. For the authorship of *Finland Illustrated in Drawings*, see Grandell 2011, XIV–XVII; Tiitta 1994, 75–79.

418 Häyrynen 2005, 41.

419 *Sverige framstäldt i teckningar* by a Finnish-born priest and author G. H. Mellin, was published 1836–40. The difference between these two is that there is no ethnographic material in Topelius's book. Another influential work, especially for the pictures, was Ulrik Thesner's *Fordna och närvarande Sverige* (1817–65). Tiitta 1994, 76; See also Knapas 2011, XIII; Grandell 2011, XIV; Hirn 1988, 59–62.

420 Historical refers here mainly to the time when Finland was under Swedish rule.

421 Häyrynen 2005, 173.

422 Tiitta 1994, 77.

423 Häyrynen 2005, 173.

424 Reitala 1986, 13.

425 Tiitta, 1994, 79.

If we analyse the illustrations in travelogues from the turn of the eighteenth and nineteenth centuries, we can note that the formulae of the *sublime* and the *picturesque* are used to a great extent. This is apparent especially in the depiction of the mountains and trees. On the one hand, the shape of the mountains, or boulders, is very often rounded. Even the most rugged mountain sides do not always look sharp-edged, but rather seem to 'bend' like trees in the wind, and therefore they produce certain kind of softness. On the other hand, they can be depicted in a very contradictory way, and thus their tops are almost like the point of a pin, in other words too thin and sharp. Also the size of the mountain is often exaggerated to enhance the impression of its grandeur. This effect can also be emphasised by adding some staffage figures.[426] As to the delineation of trees, the branches and leaves are depicted meticulously, giving the trees a round outer form and often a lace-like appearance, and yet the details are not clear enough to convey the species. Consequently, they are not specific representatives of their genera, but rather ideal examples of their kind. In the artworks of Düsseldorf landscape artists, by comparison, the different tree species are mostly quite easy to recognise, even in the simplest sketches consisting only of the outline of a tree, and the mountains seem to imitate their natural forms and size in relation to the surroundings, as described in chapter four,

The differences in approach described above can also be explained by the way in which people behave when encountering something new. When travelling to a new country, even to a new continent, we carry our imaginings and expectations with us, based on our earlier life. Therefore, in the face of something new, or something we have not seen before, we try to make it fit with our earlier experiences and knowledge. Correspondingly, artists making illustrations for travelogues, or working on expeditions, depicted nature in new regions using the old conventional formulae with which they were familiar. A good example of this kind of approach is provided by the pictures depicting Australia, as stated by Haila, who describes how the early European illustrators made the Australian landscape look European.[427] The early British settlers found this new world strange and bewildering, but in their artworks they rather focused on rendering the views of the developing colonial settlement than the disturbing landscape around it.[428] It was only later in the 1850s that the Austrian artist Eugène von Guérard (1811–1901) depicted Australian nature 'as it is', that

426 For the purpose of staffage figures, see also Baumgärtel 1995, 24.

427 Here Haila compares John Glover's drawing *Brady's Lookout, Tasmania* with Eugène von Guérard's drawing *Stone Rises near the Pirron Yallock Creek*. Haila 2004, 59–61.

428 Apart from the settlement, the artists focused on native animals, birdlife, reptiles, fish and plants. Radford 2013, 92.

is to say as he perceived it, making his landscapes look Australian.[429] Von Guérard's approach can be explained by the fact that he had studied in Düsseldorf under Schirmer, and followed the principles of the local naturalism of the time, which will be discussed more closely in chapter four.[430]

Generally speaking, a more naturalistic depiction of scenery started to emerge, and the differences between landscape painting and topographical painting became less distinctive at the beginning of the nineteenth century. The latter tended to depict either wide panoramas, which stressed the impression of distance and remoteness to the landscape, or minute and meticulous focus on the foreground. This was also a time of great exploration, and scientific travel descriptions struggled to find an innocent mode of literary and visual expression.[431] As discussed earlier, the voyagers were not narrowly specialised, and for them art and science were not separate. Therefore, art could also serve a practical purpose, for instance when depicting exotic plants or landscapes – as in the case of Humboldt. This was due to the fact that empiricism challenged the traditional rationalist way of thinking and its stress on *a priori* knowledge. For this reason, not only the sciences but also the arts participated in shaping the world. Stafford combines the explorer's method of perception with empiricism, and she talks about a specifically scientific way of seeing, or a 'scientific gaze', which she distinguishes from other eighteenth-century visual modes. According to this method, 'the scientific observer looks at that which he explores', and 'the scientific gaze entails a purposive curiosity'.[432] When writing about their experiences, the explorers tried to explain what they had seen in a comprehensible way and here the illustrations were helpful. It is to be noted, too, that this was the time when the study of natural history became popular.

On the whole, illustrated travel accounts belong to a wider concept of landscape imagery which, according to W. J. T. Mitchell, not only concerns concrete objects, such as pictures, maps, spectacles, poems, but also more abstract things, such as dreams and ideas. Following Mitchell's notion, we do not concentrate on paintings and pictures alone, but include a large variety of images and descriptions of the landscape, the subjects of landscape, and physical places, as well as scientific presentations and school books.[433] In the nineteenth century, along with the illustrated travel accounts, large-scale paintings in the form of panoramas, dioramas and neoramas, as well as photographs, conveyed information about more

429 For von Guérard's Australian landscapes, see *Nature Revealed* (2011). He travelled widely in Victoria, Tasmania, South Australia, New South Wales and New Zealand, making sketches.

430 In comparison, Radford describes this change from the British Romantic watercolour tradition to a German Romantic in oils. Radford 2013, 98.

431 Stafford points out how geologists', mineralogists' and botanists' ideas about Earth widened artists' scope of the landscape. Stafford 1984, 17, 28.

432 In the discussion of the birth of scientific language, Stafford emphasises the influence of empiricism and the rise of naturalism. All of these contributed to the development of a 'scientific gaze', which was based on the ability to see as a means of acquiring knowledge. Stafford 1984, 40, 52.

433 Mitchell 1986, 9–12; Häyrynen 2005, 59.

distant places. According to Humboldt, they served as 'a substitute for travelling through different regions', and he found the panoramas especially useful, as the spectator could be surrounded by a foreign scene free from the 'disturbing influences of reality'. Humboldt also noted the introduction of Prevost and Daguerre photographs, and to his mind, these could be of particular assistance when depicting colossal tree trunks. For Humboldt, the task of all these methods was to raise the 'feeling of admiration for nature'.[434] After all, we have to remember to make a distinction between landscape imagery and landscape paintings as emphasised by the Finnish scholar Maunu Häyrynen. Therefore, a landscape painting is art comprising many meanings, although it can be used, for example, for commercial purposes, whereas landscape imagery in popular usage does not have the same origin, but rather serves as a means for giving new connotations to artworks.[435] Later, the expansion of popular landscape imagery was really sparked by the introduction of photography. It was new technology that some of the artists working in Düsseldorf are known to have used, but as photography was still very time-consuming, artists there mainly kept to traditional methods in their landscape painting, as we shall see in the next chapter.

434 Humboldt 1852, 98.
435 Häyrynen 2005, 67.

PART II

FROM DÜSSELDORF TO THE WORLD

4
THE PROMISED LAND OF LANDSCAPE PAINTING

Landscape painting as a specific genre of visual arts is considered to have been established particularly in the early seventeenth-century Netherlands and Italy, but there are older traditions of pictorial representation of landscapes.[436] The seventeenth-century classical ideal landscape of Italian art and the realistic landscape of Dutch art were the two main sources for northern and European landscape painting at the turn of both the eighteenth and nineteenth centuries.[437] Dutch landscape art was especially highly appreciated both in Dresden and Düsseldorf, and Old Masters such as Salomon and Jacob van Ruysdael, as well as Meindert Hobbema, were greatly admired. Furthermore, landscape painting in Germany, Britain and France underwent a significant revival at that time which can be accredited to a new relationship with nature as a result of the Enlightenment and to the development of the natural sciences. Consequently, a new approach and new motifs were introduced. In the mid-nineteenth century, there was also a remarkable expansion in the appreciation of landscape art due to social and economic factors – in the case of Düsseldorf, the wealthy bourgeoisie

436 For example, the walls of the Minoan houses in Akrotiri (Santorini today), or of the Roman villas in Rome and Pompeii were decorated with mural paintings depicting landscapes. Later, imaginative landscapes provided the background to several religious Medieval and Renaissance paintings and portraits. Ludwig Trepl claims that there were no landscape paintings, *Landschaftsgemälde,* nor descriptions of landscapes in Antiquity, or the Middle Ages, but only depictions of plants and animals. I assume that by *Landschaftsgemälde,* he means a painting on canvas, and therefore he does not refer to mural paintings. Trepl 2012, 37.

437 The drawings of the dunes near Harlem from around 1603 by Hendrick Goltzius (1558–1617) are regarded as the first 'realistic' Dutch landscape images. However, there had been surveyors, mappers and artists before him who had composed landscapes for descriptive purposes. Goltzius's pictures indicate a change from a mapping mode into landscape representation. Alpers 1983, 139.

started to decorate their homes with landscapes.[438] As such, Düsseldorf and its art education belong to a long line of tradition, and it played an important role in the development of Finnish landscape painting in the nineteenth century.[439] In this sense, Düsseldorf belonged to the centre, whereas Finland and its art education represented the periphery.

THE ALLURE OF DÜSSELDORF

In Finland and Sweden, the public gaze was focused on Düsseldorf as a result of the Nordic Art Exhibition, which was arranged at the Royal Academy in Stockholm in 1850. The exhibition presented works by artists who had studied or were working in Düsseldorf, and landscapes by the Norwegian artists, Hans Gude and August Cappelen (1827–52), attracted most attention.[440] Inspired by the exhibition, Holmberg was the first prominent Finnish artist to travel to Düsseldorf to study landscape painting in the summer of 1853. Victoria Åberg, Berndt Lindholm (1841–1914), Hjalmar Munsterhjelm (1840–1905), Oscar Kleineh (1846–1919), Fanny Churberg and Victor Westerholm (1860–1919) were among others who travelled to Düsseldorf following Holmberg's lead.[441] It is a common, but false conception in several Finnish art-historical writings that Holmberg would have studied in the landscape painting class of the Academy. It was his intention to register with the Academy, but by the time he arrived in Düsseldorf, the class was full. Therefore, his name is not even included in the student lists of the Academy archive. As a result, he did not attend the Academy officially, but studied as a private student of Gude, in 1855–56. Reitala states clearly how Holmberg studied in Gude's own studio, but he was supposed to take up studies at the Academy, if a vacancy came up, but it never did. Lindholm and Munsterhjelm both studied at the Academy, but only Munsterhjelm also studied under Gude, 1861–62, and after that under Oswald Achenbach (1827–1905) from 1862 to 1865. He was the first Finn to complete the four-level education there. Lindholm studied in 1864–65 under Andreas Müller (1811–90) and Heinrich Lauenstein (1835–1910) only in the elementary class, but dropped out and continued as Gude's private student in Karlsruhe. Munsterhjelm also continued his studies with Gude in Karlsruhe.[442] Westerholm studied under Eugene Dücker in 1879–80 and 1881–86. As stated earlier, women were not allowed to study at the Academy in the nineteenth century, so Åberg became Gude's private student,

438 In her investigation into the influence of the marketing economy on the arts in Düsseldorf, Nadine Müller has stated how, for example, the painter and illustrator Adolf Schroedter (1805–75) had to take into account the financial demands of the art market in order to make a living. This not only had an impact on the subject of his artworks, but also the format, the colouring and the use of light. Müller 2009, 286. For the sales and marketing of art in Düsseldorf 1826–60, see also Müller 2011, 312–319.

439 The German links with the Nordic countries had already been established by the end of the first millennium. Ever since, they had developed due to religion and trade among other things, but also studying in Germany had long a tradition. Nordic seminary students went to study in Germany as early as in the fifteenth century. Kent 2000, 212.

440 Von Kalnein 1979, 198–199. The exhibition was also notified in *Deutsches Kunstblatt*, No. 29 of 22 July 1850.

441 Theilmann 1979, 146–148; Reitala 1986, 56; Schülerlisten der Kunstakademie Düsseldorf, Band 1560, 1561.

442 For Munsterhjelm's life and career, see Jokinen 2019 and Pennonen, Johde and Tikkanen 2019.

and Churberg studied with Carl Ludwig. After his arrival in the city in 1853, Werner Holmberg wrote to his sister Amanda that he had arrived 'in the promised land of landscape painting'.[443] Indeed, it was the place where Finnish artists – both male and female – travelled to work and study before heading to Paris, which started on a larger scale in the 1870s.

It is to be noted here though that – as for landscape painting – it was not only the local Art Academy that attracted artists, as often assumed in Finnish art-historical writing. In fact, it was the activities outside the Academy that played almost as important a role. Besides the work in the studio, making sketches and studies outdoors were essential features of an artist's approach. Hence, this chapter discusses the role of the Art Academy briefly, but more importantly it casts light on the artists' walking and painting trips, as well as the associations related to these trips, which by the time had gained more importance than the Academy itself. Because the idea of establishing an outdoor painting association originally came from Schirmer and Lessing, it is necessary to cover what its purpose was for them. Furthermore, it is important to discuss how the association influenced their art, and what kind of impact it had on later landscape painting. Here, their activities can be compared to Humboldt's ideas about landscape, as discussed earlier in chapter two. The sketches and studies the artists produced on their walking trips, as well as the finished pictures that emerged in the studio, clearly and vividly tell us about the goals of their trips and the subjects of their interests in Germany. Here I believe it was the socio-historical context of the time that influenced artists' way of seeing and approaching nature, whereby the new ideas and developments in the field of the natural sciences played an essential role.

Generally speaking, the international reputation of Düsseldorf as an art centre is said to be based on its Art Academy, *die Königlich Preußische Kunstakademie zu Düsseldorf,* which had its heyday approximately between the years 1830 and 1860. And yet, this reputation as such was not established by the actual Art Academy and its thorough, albeit traditional, four-level training, but rather, as we will see, by the genre and landscape painting, which were less appreciated, however. Under the leadership of Wilhelm von Schadow (1788–1862),[444] historical painting was considered to be the highest ranking art form at the *Kunstakademie,* as was common at the time, in addition to which he also 'tolerated and promoted' genre, still-life and landscape painting. Despite its lower status,

443 Werner Holmberg's letter on 15 November 1853; Reitala 1986, 35.

444 Wilhelm von Schadow acted as Director of the *Kunstakademie* 1826–59. Hütt 1995; 235, 237; Locher 2005, 71.

landscape painting developed to become one of the strongest genres in Düsseldorf at the time.[445] As for the role of the Academy, it was actually the work of individual artists and their activities outside the *Kunstakademie* that built up the city's reputation. One of them was Johann Wilhelm Schirmer, who is regarded as the founder and pioneer of the landscape painting of the Düsseldorf School.[446] Even so, he played a key role at the *Kunstakademie*, too. At the beginning of his career, Schirmer was nominated as a teacher of the landscape painting class in 1830, and later he continued as a professor, between 1839 and 1854.[447] Schirmer's influence, however, was not restricted to the Academy alone, but he had a great impact on the activities outside the *Kunstakademie*. In Düsseldorf, he introduced a new approach to landscape, according to which it was essential to look at the landscape in a proper fashion, and expressions like 'the new naturalism' and 'the truth of nature' were widely used. Due to this new demand for the truth of nature, *Naturwahrheit*, the earlier approach of combining the ideal with the elevation of the spiritual became less popular, although it did not lose its appeal completely. As a part of Schirmer's teaching practice, it was essential to study landscape in the open air, and accordingly compose sketches and studies from nature – only from nature, *nur nach der Natur*, as it was phrased in Düsseldorf.[448] Schirmer's ideas and teachings then again were conveyed to Finnish and Norwegian artists by Gude, as we shall see here later.

DER LANDSCHAFTLICHE KOMPONIERVEREIN

The syllabus at the *Kunstakademie* followed the common pattern that was used in other countries, too, at the time. Hence, the students started their studies by drawing and copying the human figure from Antique plaster casts, and then gradually moved step by step to painting human models. In his autobiography, Schirmer relates how he and Lessing, after entering the painting class, were given the task of painting their self-portraits. However, they preferred landscape painting to portraiture, and as an inclination towards this started to wander around outdoors in the area surrounding Düsseldorf to compose sketches and studies from nature. As a token of their interest they even founded an outdoor painting association for this purpose, in 1827. The association was called [der] *Landschaftliche Kompositionverein*, and there their aim was to represent to each other a composi-

445 Locher 2005, 71.

446 Husmeier-Schirlitz 2010, 111. I find the commonly used concept of the Düsseldorf School a bit problematic in the case of Finnish artists, because they did not form a unitary group with common goals and rules. Compare this with Baumgärtel 1995, 21–22.

447 Hütt 1995, 250.

448 Messel 2008, 137.

tion in a form of a drawing every fortnight.[449] It became essential for Lessing and Schirmer to perceive nature directly in the open air, and they started to make accurate, detailed studies from nature. In order to achieve this, they focused on studying details as carefully and as truthfully as possible. Here they also experimented by painting studies in oil colours in the open air. Over time, these images came to be equated with the naturalism of the time.[450]

Schirmer and Lessing made walking and painting trips not only in the surroundings of the city, but also farther south along the River Rhine. The destination of their first trip was Altenberg in Bergisches Land[451] in the summer of 1827, but later they travelled to more distant places in Ahrtal, the Ahr valley,[452] and in the mountain ranges of Eifel and Harz.[453] With their *Komponierverein*, Schirmer and Lessing sparked an enthusiasm among the art students in Düsseldorf for walking,[454] and younger artists began establishing similar associations in the 1830s. As a result, artists started to free themselves from the rules of the *Kunstakademie*, as it was nature that inspired them.[455] The observation of natural phenomena out in the open air became their primary goal. The German art historian Bettina Baumgärtel rightly suggests that these 'non-institutional' associations, which operated outside the Academy, played far more important a role in the students' education than the landscape painting class held at the Academy itself. The associations also acted as a first instance of criticism, as their meetings were not only attended by artists, but also by leading intellectuals in the literature, theatre and music circles in Düsseldorf.[456]

STUDYING NATURE FACE TO FACE

If we look at Schirmer's way of working, he categorised his studies into three groups. On the one hand, a study might represent one motif only, such as a tree or a plant, or it could represent the foreground (*Vorgrund*) of a landscape, which catches one's attention when being viewed from a short distance. In these kinds of studies the details are depicted very carefully. This makes it easy to identify several plants, especially if they are depicted in detail as a single plant, or placed in the foreground.[457] Even if the trees are depicted standing alone a little bit further away, or as a group just forming a silhouette against

449 Schirmer 2010 [1863], 93; Hütt 1995, 117; Leuschner 1980, 19; see also Sitt 2016, 41–43.

450 Irene Haberland talks about 'new naturalism' (Neue Naturalismus); for naturalism, see also introduction. Haberland 2010a, 308; Leuschner 1980, 22.

451 This is a place which Holmberg has also visited. As a testimony of this trip, there is a study in watercolour depicting the Gothic cathedral from the side of this apsis. No. A I 470:16, FNG.

452 For Düsseldorf artists in the Ahr valley, see, for example, Haberland 2016, 25–31.

453 Haberland points out that when artists from Düsseldorf travelled to Ahrtal and Eifel before the 1850s, the mountain slopes had no trees due to over-efficient felling. This explains the barren landscapes where the geological formations are more clearly visible. Today the slopes are covered with trees as a result of forestry. Haberland 2016, 27–28 and 2010a, 310; Baur & Bierende 2000, 114.

454 Originally it was Wilhelm von Schadow who brought the idea to Düsseldorf from Rome, where he had made links with local associations. Leuschner 1980, 19.

455 Similar sketching societies had started to emerge in Britain at the turn of the eighteenth and nineteenth centuries. See Klonk 1996, especially chapter IV.

456 Baumgärtel 2002, 20–21.

457 Before the nineteenth century, plants were usually shown outside their specific environment; thus they were just placed against a white background. Mostly real models were used, and these pictures served the purposes of botanical taxonomies. In England after 1800, however, artists started to depict plants against a landscape background, which often represented the ideals of the *sublime*, the *picturesque* and the *beautiful*, or these three combined. In these pictures, the plants to be depicted are placed enlarged in the foreground. For this, see, for instance, R. J. Thornton's work *Temple of Flora,* from the beginning of the century. Klonk 1996, 37–65. Compare Thornton's work also with Marianne North's pictures made while travelling around the world mainly in the 1860s and '70s, and now on display at the Kew Gardens in London. Her purpose was rather to depict the plants in their natural environment.

the background, it is often possible to recognise different species. On the other hand, a study could concern a larger entity (*Parthie*) consisting of a group of plants, trees or mountains. Here the different elements are usually depicted in such a way that they, or the perspective, create a stereoscopic effect.[458] In the years 1827–30, Schirmer actually painted several pictures of plants forming a group, or *Parthie*, in the Neandertal valley.[459] I would like to suggest that with this approach the characteristics of a landscape, including plants, became more visible and more easily detectible. Apart from the studies made from nature, both Lessing and Schirmer explained how they were able to draw and paint, for example, geological formations later in their studios, using the fixed images in their memory. As these pictures were based on their memories, it was not a question of slavish imitation of nature. Baumgärtel talks about a '*ricordo*', a study created from memory, which is a sort of hybrid of a study from nature and a carefully planned study. Baumgärtel has, furthermore, described Schirmer's working process on his painting trips, and points out how everything started with a thought of something being worth depicting. Therefore, it is at this level when a picture starts to form, since the artist starts to reflect that thought onto the existing pictures in his mind. Baumgärtel describes this as a two-way process: the artist takes the picture from nature, but also gives it back to it.[460]

While composing his landscapes, Schirmer made a clear distinction between a study from nature made outdoors (*Naturstudie)* and a compositional drawing (*Komposition*) composed in the studio. Baumgärtel states that Schirmer never used the concept *Komposition* for the studies taken from nature. Schirmer's clear distinction between studies and compositions, as well as the appreciation of compositions, according to Baumgärtel, derived from his teacher Wilhelm von Schadow, who used the concept *Komposition* for the first idea of a picture (*Bildidee*). In Schirmer's case, however, it is a question of a thoroughly considered positing of different elements in the picture.[461] Schirmer's idea about the relationship between studies and finished pictures, as well as his way of composing landscapes, seems to be a counterpart to Humboldt's vision of depicting nature as he also stressed the importance of composition: 'The true effect of a picture of nature depends on its composition; every attempt at an artificial appeal from the author must therefore necessarily exert a disturbing influence.'[462] It is noteworthy though that Finnish artists do not speak

458 Baumgärtel 2002, 22; for Schirmer's sketches and studies from his travels, see Husmeier-Schirlitz 2010, 111–125.

459 For this, see the works *Die Bachschleuse* (1827–30), *'Parthie' an der Düssel mit Pestwurz (Wiesenbach)* (1828–30), and *Felsen und Sträucher an der Düssel* (1827–30) in Eggerath 2012, 52–56.

460 In exhibition catalogues, however, there was a distinction between different types of landscapes: If the landscape could be identified due to real, topographic elements, it was called *Portraitlandschaft*, a landscape portrait. In comparison, an ideal landscape consisted of real elements that were placed in a new and ideal context. In addition, there are landscapes which cannot be identified using topographic elements, but which represent the character of some area, such as Eifel. Baumgärtel 2002, 18; Haberland 2010a, 316, 318; see also König 1997.

461 Baumgärtel 2002, 21, 23.

462 *Die eigentliche Wirkung eines Naturgemäldes ist in seiner Composition begründet; jede geflissentliche Anregung von Seiten dessen, der es aufstellt, kann nur störend sein*. Humboldt 2004 [1845–1862], 224; Humboldt 1852, 81.

14 HJALMAR MUNSTERHJELM
Brook (a copy after J. W. Schirmer's *Parthie an der Düssel mit Pestwurz*), undated
oil on canvas
48.5 x 55.5 cm
Finnish National Gallery / Ateneum Art Museum
Photo: Finnish National Gallery / Kirsi Halkola

about the difference between *Naturstudie* and *Komposition* in the same way as Schirmer does.

As for Lessing's way of working, the German scholar Vera Leuschner points out how his studies of nature varied over time. In the 1830s, for instance, he was mostly concerned with the detailed studies of rocks. In these artworks, nature was not to be represented as a whole, but only as a fragment. In the 1840s, Lessing's approach changed, and he started to depict wider views, ending finally with panoramas in the 1860s, such as his views from the Harz. In between, Lessing also changed the materials he used: instead of pencil, he started to use charcoal and a brush on coloured paper. The geological motifs, however, remained within his repertoire all the time. Eventually, the change in Lessing's working process led to a change in his approach, which is to say, from Romantic studies of details into more naturalistic views of the environment as a whole.[463] This change as such resembles Humboldt's idea of the total impression (*Totaleindruck)* of nature as discussed earlier in chapter two, but it could also be considered as a phenomenalist mode of depiction whereby 'each part is given equal significance in relation to the observing subject', as defined by Klonk.[464] I would also like to connect this change with the development of the natural sciences, and here with geology in particular, as this study suggests, because of Lessing's interest in geology.

I believe that the requirement of using colours *in situ* changed the mode of making sketches and studies from nature. This change also speaks of the importance of outdoor working. At the beginning of his career, Schirmer made his sketches in a sketchbook, but later he had a special portable painter's box (Malkasten) designed for these painting trips.[465] There are pictures that show artists sitting and working on a study with the painter's box in their lap.[466] The artists not only kept their colours in the box, but also the studies composed during their painting trips. Usually the dimensions of the box is compatible with the size of the studies, which normally varied between today's A4 and A3 sizes.[467] The studies were mostly made on paper or canvas, which was first fixed on the box while painting and later, after drying, on cardboard.[468] The size of these artworks often reveals whether they are studies made outdoors (A4–A3), or compositions made indoors (larger than A3).

During the first decades of the nineteenth century, there were no oil colours available in collapsible tin tubes. Therefore, artists often

463 Leuschner 1980, 24.

464 Klonk 1996, 150.

465 Baumgärtel 2002, 22; Brakebusch 2009, 6; for the painting box, see also Galassi 1991, 14, 16–17.

466 A picture of Schirmer with a painting box is provided by Rudolf von Normann in his etching for *"Malers Wanderlied"*. Haberland 2010, 314–315.

467 Baumgärtel 2002, 22.

468 Schirmer's letter to his mother on 6 November 1837; Citation in *Johann Wilhelm Schirmer in seiner Zeit* (2002), 79.

prepared colours themselves and, as, for instance, Schirmer and Lessing, kept the oil colours in little bags made of pig's bladder.[469] Since it was rather arduous to prepare colours for painting trips, and colours dried more easily in those little bags, the colour palette of the outdoor oil paintings is rather restricted, in Schirmer's case varying mostly between different shades of green and brown. For that reason, we can say that the invention of tin tubes in the 1840s liberated open-air painting with oil colour and the variety of colours expanding, thus making the overall impression of artworks lighter.[470] Furthermore, this can be seen in the increasing number of winter scenes, which Finnish and Nordic artists in general started to paint in the 1880s. Despite the cold, it was much easier to paint outdoors using tube colours. Later, the introduction of a new, flat and wide brush also had a significant impact on the artists' brushwork, making it more distinguishable and free, as became evident during Impressionism. In the scope of this study, this difference becomes very clear when comparing the artworks of Åberg and Churberg. Presumably, Åberg has used mainly brushes with a round point and her brushwork looks as if it is 'dotted' on the canvas, especially in the depiction of deciduous trees and pines. In comparison, Churberg has obviously used flat brushes too, since her landscapes are often composed with wider brushstrokes and thicker layers of colour. Unfortunately, we do not have any concrete evidence of the kinds of painting equipment, such as painting boxes, colours or brushes, that the Finnish artists working in Düsseldorf would have used. In some sketches by Magnus von Wright and Hjalmar Munsterhjelm though, we can see that the artists have drawn a person sitting out in nature, engaged in drawing.[471] In addition, in Magnus von Wright's painting *Erkylä Manor Seen from the Garden* (*Erkylän kartano pihan puolelta*, 1862), the artist has placed a female figure in the foreground who is painting outdoors. She has an easel with a canvas in front of her, a parasol behind her, and there is an open painting box with some other equipment next to the parasol.[472] There is also a portrait of Ferdinand von Wright by Arvid Liljelund, in which Ferdinand is painting lying on his bed. He has an open painting box in front of him, and the canvas he is painting on is leaning against the lid of the painting box. His palette is lying on top the lower part of the painting box. This painting, *Ferdinand von Wright at Work* (*Ferdinand von Wright työssään*), is from a later period though, as it was made in 1897.[473]

469 Email from Bettina Baumgärtel to the writer on 10 November 2010.

470 For the use of pig's bladder and invention of tin tubes, see also Gunnarsson 1989, 54.

471 See, for instance, Magnus von Wright's sketch *View from Jaakkima Parsonage over the Lake Laatokka* (1860), unfinished, pencil and watercolour, FNG, and Munsterhjelm's sketch, A II 865:7/42, FNG.

472 See *The von Wright Brothers. Art, Science and Life*, 170–171.

473 There is also a photograph by I[nto] K[ondrad] Inha (1865–1930) representing a similar situation from the year 1896.

THE APPRECIATION OF SKETCHES AND STUDIES VERSUS FINISHED PICTURES

> *Coloured sketches, taken directly from nature, are the only means by which the artist, on his return, may reproduce the character of distant regions in more elaborately finished pictures; and this object will be fully attained where the painter has, at the same time, drawn or painted directly from nature a large number of separate studies of the foliage of trees; of leafy, flowering, or fruit-bearing stems, of prostrate trunks overgrowing with Pothos and Orchidae; of rocks and of portions of the shore, and the soil of the forest. The possession of such correctly-drawn and well-proportioned sketches will enable the artist to dispense with all the deceptive aid of hothouse forms and so-called botanical delineations.*[474]

It is commonly understood that during the early and mid-nineteenth century, artists did not put their sketches and studies on display at official exhibitions or at academy exhibitions, because they represented only the preparatory material, and therefore were not valued. And yet, the meaning and purpose of sketches and studies is perhaps not so simple. Supposing that the sketches and studies are of poor quality and have been made very hastily in pencil or watercolour in a sketch block, this idea of not valuing sketches and studies might then be correct. In other respects, it might be questionable, because there is evidence that both Schirmer and Lessing's studies and drawings were highly valued by their contemporaries.

If we look at Humboldt's citation from *Cosmos*, he expresses his appreciation of working outdoors with colours and, more precisely, not only of being able to produce more true-to-life studies of nature, but also to use these studies to produce more elaborate finished pictures in the studio. Likewise, Humboldt stresses the importance of sketches and studies made directly from nature, depicting different details in their natural environment in order to reproduce them faithfully in the finished picture. He compares pictures using this approach to pictures made with sketches and studies from hothouses, or greenhouses as we call them today, saying how the latter produce deceptive details. However, according to a generally prevailing idea, artists did not exhibit their studies from nature, because they did not value them as much as the finished painting during the

474 *Skizzen, in Angesicht der Naturscenen gemalt, können allein dazu leiten den Charakter ferner Weltgegenden, nach der Rückkehr, in ausgeführten Landschaften wiederzugeben; sie werden es um so vollkommner thun, als neben denselben der begeisterte Künstler zugleich eine große Zahl einzelner Studien von Baumgipfeln, wohlbelaubten, blütenreichen, fruchtbehangenen Zweigen, von umgestürzten Stämmen, die mit Pothos und Orchideen bedeckt sind, von Felsen, Uferstücken und Theilen des Waldbodens nach der Natur in freier Luft gezeichnet oder gemalt hat.* Humboldt 2004 [1845–1862], 231; Humboldt 1852, 94.

first half of the nineteenth century. But deviating from this, in his letter to the artist Albert Berg (1825–84) in 1853, Humboldt actually recommended to Berg that he would maintain the original quality of the sketches in his drawings, 'den skizzenhaften Charakter zu lassen'. By this he meant that if something was added to these drawings, it would lessen the animation in them. On the other hand, Humboldt added that he did not underestimate the meaning of a careful drawing from nature, as it could elevate the truthful depiction of the characteristics of a landscape.[475]

Later, in his *Views of Nature*, Humboldt once more emphasised the significance of sketches and studies drawn and painted from 'the grand theatre of nature' in comparison to those made in hothouses:

> *It would be an undertaking worthy of a great artist to study the character of all these vegetable groups, not in hothouses, or from the description of botanists, but in the grand theatre of tropical nature. How interesting and instructive to the landscape painter would be a work that should present to the eye accurate delineations of the sixteen principal forms, enumerated, both individually and in collective contrast!*[476]

As discussed earlier, this mode of working, which was originally adopted from Hackert, refers to both Humboldt and Goethe's ideas of physiognomy and morphology, but also how nature had to be a felt experience, in other words, the true experience of nature. In addition, Humboldt considered details to be important in sketches and studies, such as trees depicted individually or as groups, fallen tree trunks, treetops, bark and roots of trees, branches, rocks etc. Humboldt expected artists to use these details in their final compositions to reveal the typical features of a landscape. And yet the artists' task was not to imitate nature, but rather to express the fundamental and intellectual idea of their art.[477] Actually, Humboldt's ideas about making sketches and studies from nature can be connected with phenomenalism as presented earlier in this study.

If we compare Humboldt's ideas above with the way artists worked in Düsseldorf, we can detect certain similarities. It was common that artists made a lot of drawings from nature, but they also used watercolour, gouache and oil. Using oil colour and brush allowed artists to treat form and space, colour and light at the same time.[478] On their sketch-

475 Pablo Diener compares Humboldt's idea of maintaining the liveliness of a drawing achieved in a happy mood while working in the open air with the demand for artists to express the visual experience of nature spontaneously. As an example of this, he mentions the Barbizon School. Diener 1999, 143.

476 *Es wäre ein Unternehmen, eines großen Künstlers wert, den Charakter aller dieser Pflanzengruppen, nicht in Treibhäusern oder in den Beschreibungen der Botaniker, sondern in der großen Tropennatur selbst, zu studieren. Wie interessant und lehrreich für den Landschaftsmaler wäre ein Werk, welches dem Auge die aufgezählten sechzehn Hauptformen, erst einzeln und dann in ihrem Kontraste gegeneinander, darstellte!* Humboldt 1969 [1849], 86; Pullin 2011, 23.

477 Humboldt 1852, 94; Diener 1999, 140–141.

478 Galassi 1991, 31.

ing and painting trips, Schirmer and Lessing drew and painted wide panoramic views from the mountaintops, as well as close-ups of trees, brooks, plants, stones and topographic features of Earth.[479] Similar motifs come up repeatedly in the œuvre of Schirmer and Lessing's followers and their students, including the works of Finnish artists. The sketches and studies generated on these trips were used as material for composing the finished paintings created in the studios. The purpose of these studies was not to imitate nature, but to compose a picture, paying attention to the angle of view, composition and the outlining of the subject. Thus, the picture represents a fragment of nature although, as a picture, it is examined as a whole.[480] Malcolm Andrews compares open-air studies with keeping a diary, whereby these artworks embrace a kind of privacy and intimacy, and for Schirmer his relationship with nature was an 'intimate discussion' with it.[481] He also stated that an artist should observe and sense nature like a child, with open eyes and heart, as 'everything looks as it is'.[482]

As to Schirmer's studies from nature, Baumgärtel claims that Schirmer actually did not appreciate oil studies so much, and forbade his students to put theirs on display.[483] Therefore, it was the larger compositions realised in charcoal that he presented for mutual criticism at the *Komponierverein*. Generally, the studies composed from nature, and also the ones made in oil, were only raw material for his indoor compositions.[484] Siegmar Holsten, another German art historian, combines the difference between the concepts of study and composition with the contrast between reality and the ideal. Thus, he sees the observation of nature as the goal of the study, whereas composition aims at an elevation and thus composing poetry. According to Holsten, this new naturalism with its 'truth of nature' became a cornerstone of the art produced by young artists in Düsseldorf, and consequently caused the predicament of the earlier idealism.[485] However, the appreciation of the studies and compositions changed over time, and in 1854, the physician and art critic Wolfgang Müller von Königswinter, who was also active in the *Kompositionverein*, criticised the so-called composed landscapes (*komponierte Landschaften*), as, to his mind, they were not really true to nature or poetic, but instead he praised Schirmer's oil studies and even preferred them to his finished works.[486] Müller von Königswinter also wrote about Schirmer's great number of artworks consisting of studies, drawings and paintings, emphasising the experimental nature of the artist's way of working. Müller von Königswinter, in fact,

479 For Schirmer's sketchbook from Eifel in 1831, see Perse 2016.

480 Baumgärtel 2002, 17.

481 The comparison with diaries is applicable here in that sense, too, since the artists used to write the date and place on their sketches. Andrews 1999, 191; Holsten 2002a, 9.

482 '*Der Künstler soll die Natur und die schöne Natur wiedergeben, welche geistige Eigenschaften sind hierzu nötig? Ein kindlich natürlicher Sinn,* ***der jedes Ding so ansieht, wie er ist****, der also immer offene Augen und ein warmes Herz mitbringen muss* […].' Schirmer's letter to his mother on 24 March 1833; Citation in *Johann Wilhelm Schirmer in seiner Zeit* (2002) 79.

483 Baumgärtel 2011, 215. For the emergence of Schirmer's autonomous studies, see Baumgärtel 1995, 30.

484 Baumgärtel 2002, 22; Holsten 2002, 9.

485 Holsten 2002, 9.

486 Mensger 2002, 39.

compared it with a scientist's way of working.[487] Along with Schirmer and Lessing, Müller von Königswinter was fascinated by Andreas Achenbach's naturalism, and he also praised Hans Gude's landscapes from Norway.[488]

As stated before, Müller von Königswinter, Schirmer and Lessing's friend at the *Komponierverein*, preferred Schirmer's studies to the finished pictures.[489] Moreover, he called Lessing's drawings 'treasures', but to see them in Lessing's studio, one had to get to know the artist first, as described by Leuschner. She also mentions another member of the *Komponierverein*, the author Friedrich von Uechtritz, who claimed that one could not comprehend the richness of Lessing's art or the power of his expression without having seen the diversity of his sketches and studies. And even before Uechtritz, in 1836, Count A. Raczynski, a French author who published the history of modern German art in 1841 and a dictionary a year later, had recommended that, when visiting Düsseldorf, one should definitely go and see Lessing's drawings.[490] The motifs of these drawings were not only described in texts, but Lessing actually displayed his drawings at exhibitions in Berlin in 1828 and 1832, in Düsseldorf in 1829, and in Frankfurt am Main in 1835. In addition, some drawings were reproduced as etchings or lithographs, and in the 1850s, about 30 drawings were photographed by the artist Matthias Rademacher for a commercial album. Lessing, furthermore, was able to sell his drawings in the 1830s, and there were several collectors who purchased them.[491] Leuschner also states how Lessing, in the 1830s, started to give more importance to his studies composed with oil colours, and as a result of this, they served as representatives of the finished picture in a smaller format. Nevertheless, Leuschner claims that even if Lessing's sketches and studies were highly regarded, their appreciation seems to have concerned mainly historical motifs, omitting studies of nature or people. It was only after the artist's death that the landscape studies started to gain respect.[492] Later in the 1870s, the status of studies at least seems to have been quite different from before, as Åberg wrote to her friend Helene von Villers that she intended to put some of her nature studies on display along with her finished works.[493]

EIFEL AS A HISTORICAL SETTING IN LESSING'S SIEGE, 1848

The results of Lessing and Schirmer's walking trips are seen in their artworks, foremost in the sketches and studies, but also in the finished pictures. An

487 *In der Verfolgung seiner Zwecke ist er fast zum Naturforscher landschaftlicher Darstellungen geworden*. Müller von Königswinter 1854, 324; see also Haberland & Perse 2010, 213.

488 Müller von Königswinter 1854, 334–335, 343–344.

489 *Dagegen kann ich nicht sagen, daß die nach diesen Entwürfen gearbeiteten Bilder immer durchaus gelungen waren*. Mensger 2002, 39; Müller von Königswinter 1854, 325–327.

490 For Raczynski, see *Dictionnaire d'artistes pour servir à l'histoire de l'art moderne en Allemagne* / par A. Raczynski. (1842). https://www.rct.uk/collection/1194903/dictionnaire-dartistes-pour-servir-a-lhistoire-de-lart-moderne-en-allemagne-par-a; *The London Quarterly Review* (1846). https://books.google.fi/books?id=8uQRAAAAYAAJ&pg=PA186&lpg=PA186&dq=count+raczynski+d%C3%BCsseldorf&source=bl&ots=1vMOk9_zxV&sig=ACfU3UouvsGsaXNsn6Vaw8WchTgnIuSqRQ&hl=fi&sa=X&ved=2ahUKEwjh8daw6PjIAhXNlYsKHZxLDuoQ6AEwAHoECAgQAQ#v=onepage&q=count%20raczynski%20d%C3%BCsseldorf&f=false.

491 Leuschner 1980, 15–16.

492 Leuschner 1980, 17, 19.

493 Åberg's letters to Helene von Villers on 2 December 1876 and 9 March 1877.

15 CARL FRIEDRICH LESSING
The Siege, 1848
oil on canvas
116.5 x 176.6 cm
Stiftung Museum Kunstpalast, Düsseldorf
Photo: © Kunstpalast – Horst Kolberg – ARTOTHEK

enlightening example of this is Lessing's *The Siege* (*Die Belagerung,* 1848*)*, which can be regarded as one of the key works in Düsseldorf landscape painting during its heyday. It was a well-known artwork at its time, and therefore we can assume that Finnish artists knew the painting too. Usually it has been categorised as a historical landscape painting, but in this investigation it is regarded as an indication of his interest in atmospheric and geological phenomena, which will be discussed here later.[494] As to the subject matter of the picture, we as the spectator of the scene are confronted with a view of a burnt abbey with sooty walls standing on a small hill. To the right, a wide landscape with fields and hills opens up. In the middle ground, a group of soldiers have gathered behind a wall of a fortification which runs from the abbey tower towards the foreground. There is another group of people in the foreground in the lower left-hand corner: a monk is blessing and anointing a dying soldier, while two more soldiers are watching. This group, as well as the lower part of the abbey wall, is lit by sunlight, whereas the other group is left in shadow. When focusing the gaze on the area in the middle, we can detect another army in the distance, coming towards the abbey through an undulating yellow field. These three groups of figures are, in fact, related to each other to create a narrative. As to the elements of nature, there are several trees around the abbey that are bending in the wind. Next to the army, there is a small group of trees, and a little further to the left, a tiny image of a church. We can assume that something is burning between the church and the trees, as smoke is rising, but it is blown to the left by the wind. The hilly landscape continues to the horizon and displays the typical features of the Eifel region.[495]

From the overall impression, Lessing's artwork comprises some of the core elements usually related with Düsseldorf landscape painting: The wide panoramic view opening to the horizon, the detailed depiction of the foreground, the alternation of shadows and sunlit areas constituting layers, which start from the foreground and continue to the horizon, as well as the approaching thunderstorm with dark clouds and rain. Moreover, the historical setting of the painting, with its human figures and their costumes, provides us with a narrative from the Thirty Years' War, 1618–48.[496] Thus, it refers to political aspects and the religious dispute between the Catholics and the Protestants, which was a common theme in Lessing's historical paintings. But aside from representing a historical scene, *The Siege* has been interpreted as a political allegory by Müller von Königswinter,

494 Lessing is said to have invented the so-called historical landscape. Andree 1979, 387.

495 Andree 1979, 397.

496 Lessing painted several pictures in which he used landscapes as backgrounds for scenes from the Thirty Years' War. In these paintings, the landscapes often play the key role, whereas the human figures wearing costumes from the time of the war play a narrative role, giving an indication of the date of the scene.

who associated the painting with the political upheavals of 1848.[497] The narrative and historical aspect of the painting are not of interest here, however, but rather the setting of the scene.

When taking a closer look at the painting, we can detect other elements that refer to Lessing's scientific interests. First, the rock formations in the background of the landscape place the scene in the Eifel region, and thus in the domain of geology, even if they are only vaguely visible in the background. Secondly, there are two other phenomena that indicate his interest in meteorology; these are the cloud formations in the sky, as well as the trees being bent by the force of the wind. The latter is not only indicated by the bending trees, but also by the smoke being blown by the wind. As to the sky, Lessing has used a mass of dark rain clouds emerging from the right-hand corner with a low and long horizontal cloud formation at the front. This formation resembles an *arcus* cloud.[498] In addition to their scientific reference, the use of thunder clouds strengthens the threatening feeling created in the picture, and they could be interpreted as an expression of a sublime experience.[499] In this study, however, the *arcus* cloud is seen rather as a token of Lessing's interest in and knowledge of various clouds and, as such, an *arcus* cloud is something quite spectacular. We do not see *arcus* clouds every time in conjunction with thunder, but it can be the first sign of a thunderstorm approaching. When seeing it, we recognise its special form first, and after that we pay attention to the thunder front following it. In a way, it acts like a buffer for the thunderstorm. First the cloud – long and round in shape as well as dark in colour – appears on the horizon; but as it moves very fast, at about 60 kilometres per hour, everything darkens very quickly, almost suddenly, and at that point the storm is already rolling over. Due to the special nature of the *arcus* cloud, I believe Lessing has used it deliberately to strengthen the feeling of threat.

Furthermore, the way Lessing has placed the clouds in his picture strengthens this sense of menace. The thunder clouds are approaching from the same direction as the army marching through the field. However, his mode of depicting the clouds and the wind, as such, does not only indicate his interest in meteorology, but we can also regard it as creating a total impression of a landscape in the Humboldtian sense. Besides that, if the Eifel landscape as a setting creates a static impression, the clouds and the wind work in a contradictory way. By enhancing the overall dynamic impression, they enforce the narrative of the painting. Lessing's artwork

497 Andree 1979, 398.

498 I am greatly indebted in this notion to Ph.D. Elena Saltikoff. See also Pretor-Pinney 2010, 53; Karttunen & Koistinen & Saltikoff & Manner 2008, 318–319, 322.

499 Trepl writes how Kant combines thunder clouds with the dynamic concept of the *sublime* which concerns natural forces. The thunder clouds exceed our own forces and they seem threatening, but then we should not be afraid of them in order to be able to enjoy the sight. This category of the *sublime* also includes waterfalls and volcanoes. Trepl 2012, 110–111.

16 JOHANN WILHELM SCHIRMER
Cliffs on the Seashore at Etretat, 1836
oil on canvas, fixed on carboard
41 x 32 cm
Staatliche Kunsthalle, Karlsruhe
Photo: Staatliche Kunsthalle,
Karlsruhe, Annette Fischer

must have been well-known soon after its completion in Düsseldorf, and his depiction of the *arcus* cloud seems to have made an impression on the American artist Thomas Worthington Whittredge (1820–1910), who copied the composition and the setting in the sky from Lessing's picture in his own painting *Kampf vor der Burg (Burg Drachenfels*, 1849). The major difference is that Whittredge has reversed Lessing's composition by placing, for instance, the cloud and the atmospheric phenomena as a mirror image of Lessing's painting.[500] Obviously Lessing's *Siege* made an impression on Churberg too, as seen in her painting *A Clearing, Uusimaa Landscape* (*Kaski, maisema Uudeltamaalta*, 1872). This artwork will discussed more in detail in chapter five.

SCHIRMER AT ETRETAT IN NORMANDY

While Lessing concentrated on depicting native sights in Germany, his colleague Schirmer travelled across the borders to study nature in Switzerland, France, and Italy, among other places.[501] In 1836, Schirmer made a trip to Etretat, a popular seaside resort in Normandy, which appears in several of his artworks from the nineteenth century.[502] There, on the shore of the Atlantic, he composed several oil studies of whitewashed cliffs with their sedimentary layers and the sky with puffy *cumulus* or dark *cumulonimbus* clouds, as well as the roaring sea with waves crashing onto the rocks. The artworks created on this journey demonstrate how Schirmer shared Lessing's interest in producing studies of geological and meteorological features from nature. In his *Cliffs on the Seashore at Etretat* (*Felsküste bei Etretat*, 1836), Schirmer represents the interplay between Earth formations, sky with clouds and water. To execute this, he painted the cliffs from a very short distance, standing on the edge of the shoreline. In addition to the meticulous depiction of sedimentary layers of the cliffs, he delineated the pebbles on the shore, as well as the seaweed revealed by the low tide. In both studies of the sea, *Study of the Sea at Etretat; Seashore on the Left; Seashore on the Right (Meerestudie bei Etretat*, *mit Felsküste zur Linken; mit Felsküste zur Rechten,* 1836), Schirmer focused on the depiction of waves and seawater.[503] In the painting with the seashore on the left, foam-crested waves cover almost half of the space, leaving the rest for puffy cumulus clouds. In the other study, Schirmer concentrated on emerald and light blue waves rolling peacefully onto the shore,

500 Roth 2011, 202–204.

501 Martina Sitt points out how artists started to travel to new places in order to find new and unfamiliar scenes; thus, landscape painting and tourismus are closely connected, and Sitt combines Schirmer actually with this trend. Sitt 1995, 18.

502 For Schirmer's trips to France and Normandy, see Husmeier-Schirlitz 2010, 118–120.

503 See also his sketch No. MSM 13787 at Bedbug-Hau, Stiftung Museum Schloss Moyland.

17 WERNER HOLMBERG
Sketch of Clouds
No. A I 472:1/87, pencil on paper
Finnish National Gallery / Ateneum Art Museum
Photo: Finnish National Gallery / Kirsi Halkola

18 WERNER HOLMBERG
Sketch of Clouds
No. A I 472:1/89, pencil on paper
Finnish National Gallery / Ateneum Art Museum
Photo: Finnish National Gallery / Kirsi Halkola

19 WERNER HOLMBERG
Sketch of Clouds
No. A I 472:1/90, pencil on paper
Finnish National Gallery / Ateneum Art Museum
Photo: Finnish National Gallery / Kirsi Halkola

20 WERNER HOLMBERG
Sketch of Clouds
No. A I 470:172, pencil on paper
Finnish National Gallery / Ateneum Art Museum
Photo: Finnish National Gallery / Tero Suvilammi

and thus creating a transparent illusion of water. These studies from Etretat constituted a part of Schirmer's teaching material which is revealed on the reverse of the pictures. He did not keep them to himself, which he also suggested his students do with their studies, as mentioned earlier in this chapter. Eugen Bracht (1842–1921), one of Schirmer's students in Karlsruhe, describes his teacher's practice in his memoirs; how the walls were covered with Schirmer's studies from the floor to the ceiling.[504] In his memoirs, Hans Gude enlightens us further on this practice by explaining how fascinated he and his fellow students were when Schirmer opened his portfolio and showed them the studies from France and Italy, which they were also allowed to copy.[505] Actually, we can conclude from this that Schirmer showed his studies to his students.

CLOUDS AS INDICATORS OF MOOD AND CHANGE

While walking outdoors, Schirmer and Lessing composed accurate studies not only of trees, plants, mountains, boulders and streams, but also of clouds, the sky and atmospheric phenomena. For Lessing in general, a careful study of nature based on natural sciences was a prerequisite for art,[506] and Schirmer regarded the study of clouds as a necessary practice for his students. It is obvious that Howard's taxonomy and his study of clouds was well-known in Düsseldorf, at least through the writings of Goethe. In Karlsruhe in 1855, when Schirmer had been invited to lead the newly established Art Academy, *die Großherzogliche Kunstschule*, he had a room built, the so-called *Belvedere,* above the staircase overlooking the garden. This room can also be regarded as a token of the importance given by Schirmer to making cloud studies, since its purpose was to offer his students the opportunity to observe the sky without disturbance. There the students made studies of clouds and learnt how to depict atmosphere.[507] In case Schirmer's students were not used to producing studies from nature, they had the opportunity to copy their teacher's cloud studies.[508] At the Kunsthalle in Karlsruhe, there are a few horizontally oriented cloud studies by Schirmer. In both pictures, the focus is on an evening sky with clouds coloured by the setting sun, where the land constitutes only a dark narrow strip with some protruding treetops at the bottom of the picture. They clearly depict different forms of *stratocumulus* clouds, varying from white to dark grey.[509] Although there are examples of Schirmer's cloud studies

504 For example, the ring for hanging and the text 'Kunstschule' refer to this. This interesting fact came up in the exhibition of Düsseldorf landscape painting at Sinebrychoff Art Museum in 2011; For Bracht, see Theilmann 2002, 187.

505 Dietrichson 1899, 14.

506 Küster 2000, 136.

507 Theilmann 2001, 94; Theilmann 2002, 187; Holsten 2002, 236.

508 Holsten 2002, 236–237; Theilmann 2002, 187.

509 See Nos. Lg.78, ca. 1855–60 (Dauerleihgabe der Staatlichen Akademie der Bildenden Künste seit 1920) and Lg. 639, ca. 1855–63 (Dauerleihgabe der Staatlichen Akademie der Bildenden Künste seit 1920, erst 1961 erfaβt). The former is painted in oil on paper and then fixed on cardboard, and the latter is painted in oil on cardboard; See also *Johan Wilhelm Schirmer in seiner Zeit. Landschaft im 19. Jahrhundert zwischen Wirklichkeit und Ideal,* 236–237, catalogue Nos. 205 and 206.

23 WERNER HOLMBERG
Study of Clouds, No. A I 471:34, 1854,
oil on paper, fixed on cardboard
11.5 x 23 cm
Finnish National Gallery /
Ateneum Art Museum
Photo: Finnish National Gallery /
Yehia Eweis

only from Karlsruhe, we can assume that he had already made studies of clouds and included them in his syllabus at Düsseldorf Academy, as his friend Johann Heinrich Schillbach (1798–1851) had made several studies of clouds in Düsseldorf in the 1830s.[510]

If Schirmer and Lessing were interested in the depiction of atmospheric phenomena and accordingly meteorology, I claim that this would also be the case with Finnish artists too. The von Wright brothers Magnus, Wilhelm and Ferdinand were avid observers of nature, making daily notes in their journals about weather conditions, temperature and

24 WERNER HOLMBERG
Study of Clouds, No. A I 471:52, 1855,
oil on paper, fixed on cardboard
16.5 x 31 cm
Finnish National Gallery /
Ateneum Art Museum
Photo: Finnish National Gallery /
Yehia Eweis

510 Holsten 2002b, 236.

25 WERNER HOLMBERG
Study of Clouds, No. A I 471:54, 1854,
oil on paper, fixed on cardboard
17.5 x 27.5 cm
Finnish National Gallery /
Ateneum Art Museum
Photo: Finnish National Gallery /
Yehia Eweis

26 WERNER HOLMBERG
Study of Clouds, No. A I 471:55, 1854,
oil on paper, fixed on cardboard
24.5 x 33.5 cm
Finnish National Gallery / Ateneum Art Museum
Photo: Finnish National Gallery / Yehia Eweis

21 WERNER HOLMBERG
Sketch of Clouds, No. A I 472:3/28, 1853–54,
pencil on paper
Finnish National Gallery / Ateneum Art Museum
Photo: Finnish National Gallery / Tero Suvilammi

22 WERNER HOLMBERG
Rainshower over the Christiania Fjord, 1858
watercolour on paper
26.5 x 47.5 cm
Finnish National Gallery / Ateneum Art Museum
Photo: Finnish National Gallery / Tero Suvilammi

ice conditions on the sea. In their landscape paintings, Magnus and Ferdinand in particular paid attention to the depiction of sky and clouds, and Magnus made several sky and cloud studies depicting sometimes quite special phenomena.[511] Due to their interest in the natural sciences, we can well assume that they were familiar with Howard's taxonomy. Furthermore, in Werner Holmberg's œuvre there are several sketches and studies of clouds. These studies, mostly horizontally oriented and rather small in size, are composed in oil on paper, which has been fixed on cardboard. The format is actually very similar to Schirmer's studies discussed above, composed at Etretat. From the overall impression of these studies, it is evident that Holmberg's main focus has been on the depiction of puffy *cumulus* and dark *stratocumulus,* as well as *cumulonimbus* clouds, since the proportion of the sky with clouds makes up more than half of the surface, meaning the silhouette of the forest at the bottom plays only a minor role. There are also a few studies of the sky at sunset in which Holmberg has examined the impact of the setting sun on the clouds.[512] In his sketches, Holmberg has mainly drawn the outlines of clouds in pencil, and marked different colours in writing.[513] In some of these artworks, his interest has been in the pyramid-like effect caused by the sunlight thrusting out through the clouds.[514] In comparison to Holmberg, Churberg has painted even more dramatic studies of dark *stratocumulus* and *cumulonimbus* clouds, with rain showers in her landscapes of the Eifel,[515] or in her winter landscapes depicting the sky at sunset.[516] The drama created in these studies is mainly due to Churberg's free brushwork which as such differs from Holmberg's, and therefore it can be difficult to make out the type of clouds. Churberg has also done several studies of the sky at night, where the moonlight thrusts out through *altocumulus* clouds, for example, as they do not cover the sky completely and thus create a dramatic effect with the moonlight.[517]

As many scholars have discussed, clouds have been used for creating mood, or *Stimmung*, in the artworks for centuries, which was also the case in Düsseldorf. However, I believe that this is also an area where the developments in the natural sciences, and in this case meteorology especially, provided artists with new ideas and inspiration. The great number of cloud sketches and studies artists have made attest to this. As a matter of fact, the knowledge of meteorology and of different cloud forms as presented by Luke Howard, which was discussed earlier in chapter two, has

511 See *Cloud Study*, on 22 July 1852, oil on cardboard, private collection; *Clouds* (1867), oil on canvas, private collection; *Phenomenon in the Sky*, Helsinki at 10.30 p.m. on 15 June 1860, oil on cardboard, No. XXVII-99, Helsinki City Museum; or smoke forming clouds on cold winter days, such as *Cold Winter Morning in Helsinki* (1846), watercolour, No. XXVII-88, Helsinki City Museum.

512 See Holmberg's oil studies Nos. A I 471:34 (1854), A I 471:52 (1855), A I 471:53 (1854), A I 471:54 (1854), A I 471:55 (1854), and the watercolour study No. A I 470:119 (1858) depicting a rain vate at Christiania in Norway, FNG.

513 For Holmberg's sketches of clouds, see Nos. A I 472:1/87, A I 472:1/89, A I 472:1/90, A I 472:2/21, A I 472:3/24, A I 472:3/28 from the years 1853–54, and Nos. A I 472:7/33, A I 472:7/63, A I 472:7/64 from the year 1860, FNG.

514 For this, see especially sketch No. A I 472:3/28 and oil study No. A I 471:34, FNG.

515 No. 914, *Mountain Landscape* (*Vuoristomaisema*, 1871) at Serlachius Museums, Mänttä.

516 Some of Churberg's winter landscapes with very strong purple sunsets might be related to the eruption of the volcano Hekla in 1878, as suggested by meteorologist Seija Paasonen. Paasonen 2018, 136; for Churberg's studies, see Nos. A III 2367, A III 2358, FNG.

517 For Churberg's moonlit landscapes, see Nos. KH 3367, at Ostrobothnian museum, and A II 1344, FNG; for cloud studies in oil, see Nos. KH 3364 and 3365 at Ostrobothnian museum, and No. 3685 at Turku Art Museum.

benefited landscape painting to a great extent. To be able to depict clouds in their finished paintings, artists needed to examine them carefully under different weather conditions outdoors. The numerous sketches and studies alone accomplished by different artists speak for this practice. From a scientific point of view, clouds and atmospheric phenomena, along with geological formations, can be regarded as indicators of change in nature and thus refer to the aspect of time. To be precise, we can say that the clouds, due to their ephemeral nature and use in weather forecasts, refer to the future, whereas the rocks, constituting a part of Earth's history, refer to the past. Furthermore, we can say that throughout the centuries artists have used certain kinds of clouds in landscape painting in order to catch a certain kind of atmosphere. This was a common practice in Düsseldorf, too, and a perfect illustration of this is an approaching thunderstorm, which is often depicted using dark *stratocumulus* and *cumulonimbus* clouds. In contrast, to create a more peaceful atmosphere, artists painted a serene blue sky on a summer's day with puffy white *cumulus* clouds drifting here and there. To compose a more mysterious mood, they used a grey mist hovering above the ground.

STUDYING NATURE IN GRAFENBERG AND NEANDERTAL

Before travelling further away from Düsseldorf, Schirmer and Lessing made painting trips in the surrounding area of the city. Within a short distance, there are several places near the city with interesting sights, which also attracted other landscape painters. One of these places was Grafenberg, which Karl Anders Ekman (1833–55), Holmberg's Finnish colleague and friend, described in a letter home, saying that there was a hill and a park, and it took about an hour to get there.[518] He also wrote about an outing to Grafenberg in which he had participated with other Nordic artists. On this trip, Ekman had a chance to witness a fine view from the top of the hill: on a clear day it was even possible to see the cathedral in Cologne.[519] A year earlier in 1853, Holmberg had announced his move to Grafenberg in order to follow the principles of Düsseldorf naturalism, and compose studies from nature there.[520] At that time, according to Holmberg, several German and one Norwegian landscape artists were living in the village.[521] Actually Grafenberg had already been a popular place for some time, and about twenty years prior to Holmberg, in 1834, the Ger-

518 Nowadays Grafenberg belongs to the city of Düsseldorf and it takes about half an hour by tram from the city centre. Anders Ekman's letter on 23 September 1854, SKS; Aspelin 1890, 63.

519 For Ekman's artworks from Grafenberg, see Nos. A II 985:170 and A II 985:172, FNG. The former is a sketch depicting a tree stem with no leaves, and the latter is a study in watercolour and pencil, which shows a sandy hillock by a road with some hilly landscape in the background on the right.

520 There are several sketches and studies in Holmberg's œuvre from Grafenberg. Holmberg, nonetheless, not only depicted nature, but also included pictures of houses in a more picturesque mode. See Nos. A I 470:14, A I 472:2/14, A I 472:2/32, A I 471:65, FNG.

521 Presumably this Norwegian was Sophus Jacobsen. Holmberg's letter on 29 July 1853; Aspelin 1890, 39.

△

28 FANNY CHURBERG
Clouds, 1877
12.5 x 25 cm
oil on canvas, fixed on panel
Ostrobothnian Museum, Karl Hedman's collection
Photo: Erkki Salminen

29 FANNY CHURBERG
▽ *The Moon Rising from the Haze*, study, 1875
25.5 x 37 cm
oil on canvas fixed on panel
Ostrobothnian Museum, Karl Hedman's collection
Photo: Erkki Salminen

30 ANDERS EKMAN
Study from Grafenberg, No. A II 985:170, undated
wash crayon drawing
Finnish National Gallery / Ateneum Art Museum
Photo: Finnish National Gallery /
Lauri Asanti

31 ANDERS EKMAN
Study from Grafenberg, No. A II 985:172, undated
watercolour and crayon
16.5 x 22.6 cm
Finnish National Gallery / Ateneum Art Museum
Photo: Finnish National Gallery /
Lauri Asanti

man artist Carl Hilgers (1818–90) had painted an oil study of an outdoor landscape artist at work in the forest at a place called Wolfsschlucht.[522] Hilgers's artwork captures the idea of Düsseldorf outdoor painting by taking us into a green forest interior with the undulating slopes of hills on both sides. Brown tree trunks and reddish soil cover most of the painting's surface. The juxtaposition of reddish sandy soil with the greenery of trees and plants seems to have fascinated not only Hilgers, but also several other artists there. The foreground is in shade, but there are some delicately painted plants in the middle among the tree roots which are covered with green moss. The tree trunks in the background are lit by the sun. The artist, located on the right in the middle, is equipped with a parasol and is obviously sitting on a foldable chair, holding a painter's box on his knees. Hilgers' picture shows the distinctive features of Grafenberg, which can still be discerned today, because the overall impression of the area has not changed very much ever since.

Furthermore, Hilgers' artwork represents an example of the approach taken by artists in Düsseldorf who, instead of just making wide-reaching vistas or panoramas with a large proportion of sky, turned their eyes towards forest interiors (*Waldinneres*). As a result, they focused on the depiction of trees and other vegetation from a close proximity, leaving the sky invisible, or just indicating it peering through some patches between the tree trunks and branches. Here the study of trees constituted an essential part of making sketches and studies outdoors. Along with pictures of single trees and close-ups of trees and other vegetation, the sensation of being under the trees became an essential part of the composition. One of Holmberg's early studies depicts the lower part of a tree as well as undergrowth and it seems fairly clear that it was painted in Grafenberg in 1853. Since there is no signature or year inscribed on the work, it is impossible to say whether this picture really comes from the year 1853. But if we compare it with his artworks from the following year, his technique using oil colours is clearly inferior.[523] In the context of the landscape painting in rural artists' colonies from the mid- to late-nineteenth century, Nina Lübren has described this experience of being under the trees (Lübren talks about so-called *sous-bois* paintings) as an attempt to capture the multi-sensual experience of nature, immersion, and not just the visual sense.[524] Actually, this experience is similar to Humboldt's statement that nature has to be felt.

522 *Ein Freilichtmaler in der Wolfschlucht bei Grafenberg* (1834), Stadtmuseum Düsseldorf, No. B 1467; compare with Eugène von Guérard's painting of Wolfschlucht in Grafenberg in 1841 in Pullin 2011, 82–83.

523 See No. A II 1212, FNG.

524 This approach can be applied to Churberg's depictions of forest interiors. Lübren 2001, 81.

32 HANS GUDE
Forest Interior, 1842
oil on paper fixed on fiberboard
24.5 x 25 cm
The National Museum of Art, Architecture and Design, Oslo
Photo: The National Museum of Art, Architecture and Design / Dag Andre Ivarsøy

Another popular place for outings among the artists in Düsseldorf was the Neandertal valley (earlier also called Neanderthal, Gesteins, or Hundsklipp)[525] which lies some 13 kilometres east of Düsseldorf, between the towns of Erkrath and Mettman.[526] During the first half of the century, the valley was still a limestone gorge with caves and waterfalls surrounded by whitish expanses of rugged rock, and with the River Düssel flowing at its bottom. The slopes on both sides of the river were covered with lush vegetation among the rocks. At the *Kunstakademie*, it was Schirmer and Lessing who found the valley and visited it frequently. Schirmer also took his students from the landscape painting class on outings to the valley to study nature face to face. As such, it provided interesting opportunities for artists to study the geological features and vegetation.[527] Schirmer's student Hans Gude painted a study there in 1842, and in his memoirs he talks about the valley as an artist's paradise. Gude describes how a brook with clear water was running between *Huflattich* (coltsfoot) and stones that were covered with green moss. The limestone rocks, about three metres high, were light grey and on their slopes there were beeches and plane trees growing.[528] This description matches his study exactly. The inspiration for several artists to depict these plants along the brook lies presumably in a number of studies that Schirmer made in the valley, during 1827–30.[529] Schirmer, nevertheless, depicted Butterbur (*Pestwurz*) which is similar to coltsfoot in appearance, but bigger in size, as for example in *Parthie an der Düssel mit Pestwurz* (*Wiesenbach*).[530] In general, Schirmer's studies of the valley are rather dark close-ups of the River Düssel, with stones and rocks as well as lush vegetation on its shore. The colour palette varies mostly between different shades of green and brown, which reflects Schirmer's use of a limited number of colours.[531] This again speaks of the lack of ready-made oil colours in tin tubes at the time, as discussed earlier in this chapter.

In addition to the riverside, another popular sight for artistic discovery in the valley was a large rock cliff called Rabenstein, of which there is a great number of artworks by several artists (see Fig. 33).[532] One example is a study in watercolour by Holmberg, which he very likely painted as a result of an outing to the valley in 1857 (see Fig. 34).[533] Before that he had been to Erkrath in the summer of 1854, together with the Norwegian artists Sophus Jacobsen and Peter Arbo (1831–92), as well as the Danish artist, Johannes Wilhelm Zillen (1824–70).[534] Of these four artists, Holmberg spent

525 Schmitz & Thissen 2002, 8.

526 The contemporary Swedish artist Matts Leiderstam has also used Neandertal in his installations. His exhibition 'Sett härifrån' (Seen from here) was organised at Turku Art Museum 1.10.2010–16.1.2011. There he had an installation in four different rooms called *Neandertal Landscape 2008–10* for which he had studied Düsseldorf landscape painting and its connections with Neandertal. For the history of Gesteins, see Schmitz & Thissen 2002; for the history and artistic discovery of the valley, see Eggerath 1996, 2003 and 2012.

527 For Neandertal and artists, see also Pennonen 2012a.

528 Dietrichson 1899, 12. See also Eggerath 2012, 110. Gude has written 'Gesteins' under his signature in the lower right-hand corner of the study. The small size (24.5cm x 25cm) as well as the fact that the artwork is painted in oil on paper, also indicate that it is a study painted outdoors. No. NMG 00636-001, NMO.

529 Eggerath 2012, 52–56.

530 Coltsfoot is much more common a plant in Finland than butterbur, but both belong to the aster family. Gude may just have confused these two plants with each other.

531 There is a copy of Schirmer's work by Hjalmar Munsterhjelm, No. A II 1128, FNG. Presumably he painted it while studying in Düsseldorf, see Fig. 14.

532 For instance, Schirmer's *The Rabenstein in the Neander Valley near Düsseldorf*, (ca. 1827–28), No. Lg. 722, Staatliche Kunsthalle, Karlsruhe, and Eugène von Guérard's *Rabenstein* (1841) in Pullin 2011, 89.

533 Aspelin describes the outing as taking place in the spring. However, there is a watercolour called *Autumnal Landscape* (*Syysmaisema,* 1857, No. A II 790, FNG) from this year depicting probably Rabenstein. Aspelin 1896, 105; Pennonen 2012a and 2017a. http://tahiti.fi/04-2012/dossier/in-pursuit-of-geological-motifs-%e2%80%93-landscape-painting-in-dresden-and-dusseldorf-1780%e2%80%931860/.

534 Holmberg's letter on 4 August 1854, SKS; Aspelin 1890, 58–59.

33 JOHANN WILHELM SCHIRMER
The Rabenstein in the Neander Valley near Düsseldorf, ca. 1827–28
wash pencil and colour drawing on paper
54.7 x 53.3 cm
Staatliche Kunsthalle, Karlsruhe, on continuous loan from the Academy of Arts in Karlsruhe
Photo: Staatliche Kunsthalle, Karlsruhe, Heike Kohler

34 WERNER HOLMBERG
Autumn Landscape near Düsseldorf, 1857
watercolour
21.5 x 20.5 cm
Finnish National Gallery / Ateneum Art Museum
Photo: Finnish National Gallery / Tero Suvilammi

most of that summer there and returned to Düsseldorf only at the beginning of October. While in Erkrath, Holmberg made several studies both in pencil and paint, which he collected in a thick portfolio.[535] It is more than likely that during this visit they also went to Neandertal, just a few kilometres away, but as Holmberg did not sign his sketches and studies regularly, it is difficult to determine which are from Neandertal, or from this particular summer. In his œuvre, however, there are two pencil sketches, which depict a scene from a gorge with steep rugged rock faces on both sides. Between these, in the middle ground, there are slim tree trunks growing at the bottom of the gorge. In one of the sketches (Fig. 35), there is also a sort of deep opening behind these trees in the middle which might be the entrance to a cave, and the patches of white gouache to the left could be interpreted as water.[536] In the other one (Fig. 36), there is a narrow path leading between steep rock faces, giving a very similar impression of the landscape, and in the middle we can detect two tiny figures walking along the path.[537] The scenery in Holmberg's former sketch resembles the one in Gude's study mentioned above, and somebody has written 'Gesteins' on it. As it is not Holmberg's handwriting, it is not possible to say whether the sketch really is of Neandertal. It is, nevertheless, noteworthy that the sketch is in Holmberg's sketch block from the year 1853, which would indicate that he could have been to the valley that year too.[538] The other work is from the sketch block of 1854, when he spent the summer in Erkrath.[539] In any case, the trips these Finnish and Norwegian artists made to Neandertal can be regarded as a source of inspiration in their pursuit of similar spectacular sights in their native countries, as we shall see here later.

THE FASCINATION FOR GEOLOGICAL FORMS IN AHRTAL, EIFEL AND HARZ

Lessing's first encounters with the geological formations in Ahrtal took place on a painting trip he made with Schirmer in 1827.[540] In the first week, they drew and painted together in Altenberg, but Schirmer had to return earlier for financial reasons. Lessing continued on to Altenahr, where he made several studies of the geological formations of the area.[541] One of the area's popular artistic motifs was the ruins of the Castle Are, but the view from the mountaintop called 'white cross' (der Weiße Kreuz), towards Reimerzhoven following the chain of mountains on both sides of

535 Holmberg's letter on 1 October 1854, SKS.
536 No. A I 472:2/30, FNG.
537 No. A I 472:3/86, FNG.
538 Pennonen 2012a and 2017a.
539 For Holmberg's wandering trips in Germany and comparison with his sketches from these trips, see Pennonen 2017a.
540 See Baur & Bierende 2000.
541 Leuschner 1980, 91; See also Haberland 2010a.

35 WERNER HOLMBERG
Sketch from Gesteins
No. A I 472:2/30, 1853
pencil on paper
Finnish National Gallery /
Ateneum Art Museum
Photo: Finnish National Gallery /
Tero Suvilammi

36 WERNER HOLMBERG
Sketch from Gesteins
No. A I 472:3/86, undated
pencil on paper
Finnish National Gallery /
Ateneum Art Museum
Photo: Finnish National Gallery /
Tero Suvilammi

the Ahr valley, had also caught artists' attention on several occasions.[542] The fascination with this place has also been verified by Holmberg and Ekman when, following Schirmer and Lessing's route, they set off on a painting trip along the Rhine, and then to the Ahrtal valley in October 1854. Their destinations, as well as the motifs of the sketches and studies they made, seem to follow exactly Schirmer and Lessing's pictorial legacy. Once there, Holmberg and Ekman seem to have taken an interest in the historical sights in the Romantic spirit, such as the Drachenfels castle in Siebenge-birge, or Are castle in Ahrtal, but they also made careful studies of geological formations down by the River Ahr, paying attention to similar views as Schirmer did in his studies from Elztal in 1833, for instance.[543] Later in his career, Holmberg abandoned the depiction of such historical sights, and instead concentrated on landscapes with farmhouses or motifs from nature only.

In 1827, Lessing travelled to the Eifel for the first time, but the place obviously attracted him, because he made five more trips there. In 1832, he returned again, making several sketches and studies of the rock formations at Gerolstein.[544] These Gerolsteiner Dolomites, which caught the attention not only of Lessing but later also Schirmer, were originally a reef during the Devonian period, but today consist of a row of limestone rocks.[545] Instead of being sharply edged, they are rather rounded due to weathering.[546] In this context, it is worth noting that Lessing's travel route in the Eifel followed Herr von Stengel's contemporary geognostic maps, which were published in Jakob Nöggerath's four-volume anthology of geological and mineralogical essays.[547] Schirmer and Lessing also rendered the Eifel landscape in wider panoramic views, such as Lessing's *Eifelmaar* (1833) and *Eifel Landscape* (*Eifellandschaft*, 1834), or Schirmer's watercolour *Eifel Landscape at Gerolstein* (*Eifellandschaft bei Gerolstein*, 1844). Lessing's pictures portray a peculiarity of the area, as the lakes have formed in the craters of extinct volcanoes, known as maars, which explains their round shape. In comparison, Schirmer's landscape work from Gerolstein reveals how the terrain in the Eifel had changed.[548] In 1844, it was no longer a place of wild nature devoid of human impact, but rather one of efficient forestry practised by the Prussian government. Thus we can see rather barren slopes, instead of thick forests and lush vegetation on the hills. In Schirmer's artwork we can see how the forest has been chopped down on both sides of the road, which meanders from the lower left-hand corner towards a mountain

542 For this, see Haberland 2010b, 34–35, and Schimer's study No. 1956Gr082, 57 at Clemens-Sels-Museum Neuss.

543 For Drachenfels and Siebenge-birge, see Holmberg's studies Nos. A I 472:2/40 and A I 472:4/3–4, and Ekman's study A II 985:189. For Ahrtal, see Holmberg's study No. A I 472:4/12 and sketches Nos. A I 472:4/14–42 as well as Ekman's sketches Nos. A II 985:173, A II 985:178–187 from the years 1853 and 1854, FNG; for Schirmer, see No. LG.81 at Staatliche Kunsthalle Karlsruhe.

544 In the collections of the Cincinnati Art Museum, there are several sketches and studies made by Lessing on the trip to the Eifel in 1832, for example Nos. 1882.3206, 1882.3209, 1882.3208, 1882.3213, 1882.3198. For this, see Leuschner 1980, 97–98; Baur & Bierende 2000.

545 Haberland 2010c, 36–37.

546 Their shape actually reminds us of that of the sandstone mountain peaks at Bastei along the Elbe, as depicted by Caspar David Friedrich. For this, see Chapter 2.

547 Baur & Bierende 2000, 118; Perse 2011, 98.

548 This painting was made as a result of a trip that Schirmer made with the art historian and art critic Karl Schnaase. Perse & Schneiders 2010, 284–285; see also Schirmer's sketchbook from Eifel (1831) in Perse 2016, and Lessing's oil study *Eifel Landscape* (*Eifellandschaft*, no date) in *Die Eifel im Bild. Düsseldorfer Malerschule* 2016, 141.

slope with forest in the background.[549] The bare landscape both in the foreground and in the middle leaves the massive rocks exposed on both sides of the road. All in all, although both Lessing and Schirmer showed interest in the geological formations of the Eifel, it seems that Lessing exploited his sketches and studies more in his later works, as he used these views as a background or a setting for his historical paintings.[550]

As for other impressive geological sights in Germany, Lessing not only travelled to the Eifel region, but also made several trips to the Harz region, travelling there seven times between 1836 and 1878. The Harz was indeed already a popular resort for both artists and poets in the eighteenth century, and at the beginning of the nineteenth century several artists from Dresden, including Friedrich and Carus, visited the mountains frequently.[551] On his trips, where Lessing was accompanied by Gude and Whittredge among others, he mostly visited Halberstadt, Quedlinburg, Blankenburg and the Bode and Oker Gorges. They produced about 300 artworks from these trips.[552] One of the motifs Lessing has depicted represents Teufelsmauer, a popular natural resort for tourists and artists consisting of huge sandstone blocks. It is interesting to compare Lessing's studies of the Teufelsmauer at Timmenrode with the work of Ludwig Richter (1803–84) from the same place. Although two of their pictures are from same year, that is 1874, their approach is quite different: While Richter created a Romantic view of Teufelsmauer lit by moonlight, Lessing concentrated on a detailed depiction of the rock formations in the naturalistic spirit of Düsseldorf, reducing other features of the landscape to the minimum. While Richter's work falls into the domain of the *picturesque*, Lessing's presents a view observed from nature, where his major interest lies in the structural formation of the rock.[553]

Moreover, Lessing used the rugged mountain scenery of the Harz region as a setting for several paintings depicting the Thirty Year's War, in the same manner that he did with the Eifel. The rugged sides of the gorge carved by the River Bode appear in many of his artworks, and he was famous for his numerous drawings among his contemporaries, but he mainly showed them to the people he knew well, as discussed earlier in relation to the *Landschaftliche Komponierverein*. In this geological context, it is noteworthy that Lessing's œuvre from the Harz was not limited to rugged gorge scenes; he also showed interest in depicting the sandy soil at Regenstein, leaving the rock formations in the background, as seen

549 Perse & Schneiders 2010, 285; see also Perse 2011, 99. A similar trend took place in Finland in the 1870s, as described by Ville Lukkarinen. Lukkarinen 2004, 53–54.

550 One of these formations is called Munterley and the other Auberg, and they both can be distinguished in Lessing's *Eifel Landscape* (*Eifellandschaft*, 1834) which belongs to the Nationalmuseum in Warsaw.

551 Heinrich von Kleist and Goethe were also among them. Goethe not only described the mountains in his poetry, but also made sketches there. See Zschoche 2000.

552 Küster 2000, 132–133, 137.

553 For the artworks, see Küster 2000, 135, 141, 143.

△

37 FANNY CHURBERG
Mountain Landscape, 1871
oil on canvas
29 x 44 cm
Signe and Ane Gyllenberg Foundation
Photo: Matias Uusikylä

27 FANNY CHURBERG
▽ *Mountain Landscape*, c. 1871
oil on canvas
26.5 x 39 cm
Serlachius Museums
Photo: Studio Tomi Aho / Tomi Aho

in his *Harz Landscape near Regenstein* (*Harzlandschaft bei Regenstein*, 1853). The delineation of sandy terrain seems to have constituted a popular motif among landscape artists, including Finnish artists as we shall see in chapter five. Lessing's interest in natural phenomena was not limited to the time he was living in Düsseldorf, but continued throughout his life. The German painter Anton von Werner (1843–1915), who ended up in the Harz to study nature, although he was unaware of Lessing's trips at the time, has described his acquaintance with Lessing in Karlsruhe. There Werner noticed on their mutual walks how Lessing still made shrewd observations about nature concerning cloud formations, terrain, shades of clay.[554]

In point of fact, several Finnish artists developed an interest in the geological formations of the Eifel region while in Düsseldorf, one of them being Fanny Churberg. In her œuvre, there are several studies from the Eifel.[555] One of these works, *Mountain Landscape, Eifel* (*Vuoristomaisema*, *Eifel*, 1871), indicates that it is a study made from nature because of the free brushwork, the unfinished quality and the size of the work (29cm x 44cm).[556] It depicts a scene with a mountain in the background, the foreground reserved for lush vegetation, mainly bushes and trees in autumnal colours. At the top, Churberg has painted a blue sky with some puffy *cumulus* clouds. There is also another study with the same name, *Mountain Landscape* (*Vuoristomaisema*), also from the same year, which she has painted in the same manner in the Eifel region.[557] In this case, too, the small size (26.5cm x 39cm) and unfinished quality refer to a study made in the open air. In this picture, however, the sky is covered with dark *stratocumulus* and *cumulonimbus* clouds with a shower of rain approaching from the left. In the foreground, the colouring of the terrain resembles Schirmer's *Eifel Landscape at Gerolstein* (1844), and in the middle ground we can see a chain of tree-covered mountains. Moreover, in her third landscape study from the Eifel,[558] the scenery resembles that of Schirmer's *Eifel Landscape at Gerolstein* (1844) and Lessing's oil study, *Eifel Landscape* (*Eifellandschaft*, undated) to such a great extent that it actually could be from the very same region.[559] In both Churberg and Schirmer's paintings part of the landscape looks brown and quite barren, which is evidence of the over-efficient cutting of trees in the area, as mentioned before. In addition to Churberg's studies above, there is one little painting in a private collection, called *Edge of the Forest* (*Metsänreunaa*, undated) that could be also from the Eifel. It depicts a landscape which is divided into two: on

554 Küster 2000, 131.

555 Lindström describes Churberg's studies from the Eifel region as 'mountain landscapes in the evening'. Lindström 1938, 47.

556 No. G-2001-16, Signe and Ane Gyllenberg Foundation, Espoo, see Fig. 37.

557 No. 914, Gösta Serlachius Museum, Mänttä, see Fig. 27.

558 No. 1888, Kuopio Art Museum, Kuopio, see Fig. 38.

559 For Schirmer's artwork, see Perse & Schneiders 2010, 284–285, and for Lessing's oil study, see *Die Eifel im Bild. Düsseldorfer Malerschule* 2016, 141.

38 FANNY CHURBERG
Mountain Landscape, 1871
oil on cardboard
19.5 x 31 cm
Kuopio Art Museum
Photo: Kuopio Art Museum

the left, we can see the edge of a dark forest which closes the view. There are two tree stumps in the middle and in the foreground, but on the right there is an open view of a hilly landscape with reddish sandy ground that is similar to Churberg's studies from the Eifel.[560] In these artworks Churberg has managed to capture something characteristic of the Eifel which makes the landscapes topographically recognisable.

Aside from Lessing and Schirmer's views from Gerolstein, it seems that the rugged scenery of the Bode Gorge composed by Lessing also inspired Finnish artists. This not applies to Churberg's artworks, but also to some of Holmberg's, as well as Magnus von Wright's landscapes, indicating that their source of inspiration may lie in Schirmer and Lessing's œuvre, such as Lessing's *The Thousand-Year-Old Oak* (*Die tausendjäh-*

560 For the artwork, see Konttinen 2012, 128–129.

rige Eiche, 1837) and *Bode Valley in the Harz* (*Das Bodetal im Harz*, 1871).[561] In these two paintings, we can see how the valley is surrounded by impressive rugged upright rocky cliffs that are also reminiscent of the scenery at Gerolstein. Lessing used the same motif several times and depicting these geological formations indicates that it was a theme that truly inspired him.[562] Since Lessing's artworks were on display at the permanent exhibitions in Düsseldorf, we can assume that Finnish artists knew them well. While walking in Finnish nature, Churberg, Holmberg and von Wright may have searched for similar, impressive geological phenomena as those in Schirmer and Lessing's works. This possibility will be discussed more in detail in chapter five.

FOREST SCENERY AND INTRIGUING OAKS AND BEECHES

As seen in the mountain and hill scenery above, the depiction of geological formations does not constitute the only motif in the artworks; in many cases an essential part of the landscape is comprised of the vegetation, and especially different kinds of trees or, on a larger scale, forests. In Germany, forests have played an essential role both in historical and political events across the centuries.[563] Since the Industrial Revolution and the emergence of urbanisation, they have also offered a retreat from hectic city life. As a token of their importance today, German beech forests have been declared world cultural heritage sites in some parts of the country.[564] Moreover, the oak forests of the north have been defined as the birthplace of German culture,[565] and later in the 1830s the oak would become a national symbol.[566] Along with the oak, the lime tree has competed for the nomination as national tree. A decisive factor in this contest has been the age of the tree, since no other tree on German ground can reach one thousand years of age, apart from the oak or the lime.[567] Accordingly, one of the most studied trees in Düsseldorf was the monumental and gnarled oak which consequently achieved a special role as a particularly German tree in landscape art.[568] For the same reason, in the summer of 1836, Lessing travelled to Solling, which was famous for its old oaks, to study the old trees there.[569] As an example of Lessing's interest in these ancient trees, there are two paintings in his œuvre which, more or less, represent the same view from the Bode valley in the Harz, with an massive old oak by a small river: *Forest Landscape (Waldlandschaft*, 1836), and *The Thousand-year-old Oak* (*Die Tau-*

561 Compare with von Wright's painting *Suopeltovuori in Haminalahti*, 1867, No. A I 28, FNG. While in Düsseldorf, Magnus von Wright visited the Eifel too. At the beginning of August 1858, he travelled with Gude and a German genre painter, Adolf Schlesinger, to Andernach near Koblenz. They stayed there for about two weeks and visited, among other things, the Benedictine abbey of Laach (nowadays Maria Laach Abbey) by the lake, Laacher See. The lake, round in shape, is one of the maars in the Eifel region, and thus formed in an old crater of a volcano. In his diary, von Wright tells how they started with making studies outdoors of the abbey ruins, and painted from morning till evening. He mentions especially a 'study with sunlight' ('*studie med solbelysning*'). In addition, the constructions made for vine growing on the mountain cliffs caught his attention. Wright 2001, 28.7. and 13.8.1857 (327–328); A II 818:1/12, FNG; see also Pennonen 2017, 53.

562 For the artworks, see *Carl Friedrich Lessing. Romantiker und Rebell* (2000), 59 and 105.

563 See Bernhard 2011, 130–137.

564 In his diary, von Wright also writes about 'most lovely beech forests and groves' which are situated by Laacher See ('[…] *vid Laacher som ligger uti de herrligaste bokskogar och lunder*'). Von Wright 2001 [1850–62], 327; Breymayer & Ulrich 2011, 15.

565 Mitchell 1993, 154; Demandt 2008, 166–168.

566 Bernhard 2011, 134.

567 Demandt 2008, 166–168, 186.

568 Mitchell 1993, 36, footnote 60.

569 Küster 2000, 133.

41 WERNER HOLMBERG
Sketch of an Old Oak
No. A I 98:1, undated
wash ink drawing
Finnish National Gallery /
Ateneum Art Museum
Photo: Finnish National Gallery /
Hannu Aaltonen

42 WERNER HOLMBERG
Sketch of an Old Oak
No. A I 472:5/44, undated
pencil on paper
Finnish National Gallery /
Ateneum Art Museum
Photo: Finnish National Gallery /
Tero Suvilammi

sendjährige Eiche, 1837).[570] There we can see a man and a woman kneeling down in front of an imposing old oak, the thick roots of which reach down to the river, and the trunk of which has started to split due to old age. The girth of the tree indicates its great age, because it must be several times a man's size. The tree seems to be rather tall, but it is not completely visible. Some of its branches have no leaves, exposing their twisting structures, whereas most of the trunk is hidden behind green foliage.

Many non-German artists were attracted by the old oaks in Germany, too. Hans Gude, for instance, mentions painting studies with the German artists Oswald Achenbach and Albert Flamm (1823–1906) in Brücker Wald, a large oak forest near Cologne, in the summer of 1844.[571] The gnarled oak was also one of the popular motifs that Holmberg, Churberg and Åberg studied carefully in Düsseldorf, and there are several sketches and studies depicting massive oaks standing alone, or in pairs, with their thick twisting branches protruding to the sides or towards the sky.[572] The special appeal that the German oak had to them is understandable, because in Finland the artists could see them growing wild in nature only in the south-western part of the country, and especially in the areas along the coast. Besides, in Finland the oak does not grow as big nor does it live as long as it does in Germany due to the climate. Thus, we can imagine how exotic it must have been to see such massive trees in nature, even forming big forests. And it was not only oaks that fascinated them, but German forests in general, with their different kinds of broad-leaved trees, such as the lime, the maple, or the ash.[573]

Prior to the developments in Düsseldorf, sketching from nature had already reached new dimensions in the 1780s due to the interest in depicting specific details, as stated by Timothy F. Mitchell. Therefore careful observation of natural phenomena, as well as the value of individual characteristics, had started to gain even more importance.[574] These individual characteristics became evident in depictions of tree trunks, leaves and flowers and, consequently, there was a shift from mere tree-like shapes into clearly recognisable species. This development follows not only Hackert and Goethe's ideas, but also Humboldt's, as discussed earlier in chapters one and two. Furthermore, Mitchell claims that in the earlier Dutch landscape painting of the seventeenth century, it was only Ruysdael who had depicted trees in a recognisable way.[575] The trees started to control the physiognomy of landscape in art in Dresden, and the trend continued in

570 There seems to be two different versions of this motif, since this artwork is called *Forest Landscape* (*Waldlandschaft*) and given the inventory number MNP Mo IIoI at Muzeum Narodowe w Poznaniu, Poznán; for this, see Andree 1979, 393. The other artwork is called *The Thousand-year-old Oak* (*Die tausendjährige Eiche*, 1837) in Bierende & Sitt 2000, on pp. 59 and 163, and given the inventory number 1011 at Städelsches Kunstinstitut, Frankfurt am Main.

571 Dietrichson 1899, 18.

572 See Churberg's *Old Oak Tree* (*Vanha tammi*, ca. 1872), No G-2011-17 at Signe and Ane Gyllenberg Foundation, Åberg's *Old Oak Tree*, No. EAT 105, Emil Aaltonen Foundation, and Holmberg's sketches Nos. A I 98:1, A I 472:5/44–48, FNG. Churberg's painting *Old Oak Tree* is, in fact, unfinished and it turned out to be a copy of Carl Ludwig's work. Pennonen 2017c, 58.

573 Finland is divided into eight different zones according to the plants that grow there. The so-called valuable broad-leaved trees, such as oak, lime, ash, or maple, grow and thrive only in the southernmost zone. See, for instance, http://koivu.luomus.fi/kasviatlas/maps.php?taxon=40434&year=2014.

574 As an example of this, Mitchell gives the artworks of Carl Wilhelm Kolbe (1759–1835). Mitchell 1993, 29–30, 33.

575 Mitchell 1993, 30, 35; see also Mattos 2004.

39 FANNY CHURBERG
Old Oak Tree, c. 1872
oil on paper fixed on plywood
66 x 46 cm
Signe and Ane Gyllenberg Foundation
Photo: Matias Uusikylä

40 VICTORIA ÅBERG
Old Oak Trees
oil on canvas fixed on panel
49.5 x 39.2 cm
Emil Aaltonen's collection, Emil Aaltonen Museum
Photo: Petri Nuutinen

51 OSWALD ACHENBACH
Cypresses in the Park of Villa d' Este at Tivoli, 1850
oil on cardboard
39.5 x 27.5 cm
Stiftung Museum Kunstpalast, Düsseldorf
Photo: © Kunstpalast – ARTOTHEK

Düsseldorf, where artists started using trees to emphasise the characteristics of nature in different countries. Over time, Finnish artists turned their gaze to Finnish nature, and German nature and forests lost their appeal. As a result, they started using pine, spruce and birch to bring in the typical features of Finnish landscapes, which will be explored in chapter five.

THE FASCINATION WITH CYPRESSES AND POPLARS

Apart from the oaks and beeches, which Schirmer depicted in several artworks mainly from Germany, he seems to have been fascinated by cypresses and pines in Italy.[576] In a diary entry from August 1839, he wrote that cypresses fascinated him, but clearly he painted them the following year dur-

576 There are several studies in watercolour and ink wash, as well as pencil sketches from the 1840s in which Schirmer has depicted forest interiors and massive oaks in Rurwäldchen in the neighbourhood of Jülich and Solling. Here he is said to have reflected the influence of Jacob van Ruysdael especially. Holsten 2002c, 176; Theilmann 2002, 176–178; Haberland & Perse 2010, 222–224.

43 WERNER HOLMBERG
Poplar Alley, 1857
oil on canvas
70.5 x 89.5 cm
Emil Aaltonen's collection,
Emil Aaltonen Museum
Photo: Museokuva

44 WERNER HOLMBERG
Poplar Alley, 1856
oil on canvas
33.5 x 48 cm
Finnish National Gallery /
Ateneum Art Museum
Photo: Finnish National Gallery /
Jenni Nurminen

ing his second and longer stay at Tivoli.[577] In a study executed in pencil and ink, Schirmer has placed the beholder at a distance where the entire cypress can be seen from foot to top.[578] The trees form a dense, bush-like composition against a white, unpainted background that leaves the tree trunks clearly visible. In another study in oil, we see the cypresses from below, but cannot see them completely; hence, our attention is directed towards the dark green silhouettes of the trees against the blue sky.[579] Here Schirmer has stressed the tree trunks, as well as the branches, using a light effect cast from the left. In addition to cypresses, Schirmer painted Italian stone pines (*Pinus pinea*) at Tivoli, and their umbrella-shaped forms appear in studies made in the park of the Villa Borghese in Rome.[580] His studies of cypresses not only inspired Oswald Achenbach, his follower at the Academy who painted the same cypresses in Italy in 1850,[581] but very likely Holmberg too, who had no access to cypresses in Germany, but instead depicted trees of similar shape, and thus ended up painting poplars in 1856 and 1857.

As an example of this, there are, in fact, three different versions of Holmberg's *Poplar Alley* (*Poppelikuja*), two of which he painted in 1856 and the third made in the following year.[582] The basic composition of these paintings is very similar, except for some variation in details. In all three versions, we can see a winding sandy road which leads from the foreground, turning right. It is lined with an impressive row of poplars, making a dark green silhouette set against a deep blue sky. On the right, a yellow rye field forms another strong colour contrast next to the row of poplars. In two of the paintings, Holmberg has placed a German farmhouse in the middle; thus, the road leads towards the house, turning right just before reaching it. The only version without the house is a study painted in the open air in 1856, as it is smaller in size (33cm x 48 cm) and painted with less detailed brushstrokes.[583] There is no house in the sketch in which Holmberg has clearly studied the composition either (Fig. 45).[584] Holmberg, moreover, has changed the number of trees, as well as the gender of the people in the picture. In the study, there is a woman walking along the road carrying a basket on her head, whereas in one of the other versions two men are strolling along the road, and a shepherd with a flock of sheep is in the third.

On account of these different versions, as well as the sketches Holmberg made, we can assume that this motif was of special interest to him.[585] They all depict a landscape which is situated near Erkrath, a town which lies some 13 kilometres east of Düsseldorf and near the Neander-

577 Holsten 2002d, 152; for Schirmer's artworks of cypresses, see also Nardmann 1995, 80–81.

578 No. 1938-38, SMKP.

579 No. 2263, continuous loan at SMKP by the Düsseldorf Art Academy.

580 No. 2228, continuous loan at SMKP by the Düsseldorf Art Academy.

581 No. 4189, SMKP; Andree 1979, 247; The Swedish artist G.W. Palm also painted *Cypresses* on 23 Aug 1842 at Villa d'Este in Tivoli (now in the Nationalmuseum, Stockholm). See Gunnarsson 1989, 253; compare with Naardman 1995.

582 One of these paintings, the final work made in 1857, belongs to the collections of Emil Aaltonen Museum in Tampere. It was owned by Sophus Jacobsen first, and after that by Eliel Aspelin. The one with the two male vagabonds, painted by the German artist Benjamin Vautier (1829–1898), was presumably sold to Germany. Aspelin 1890, 213; Reitala 1986, 73–75.

583 This picture was owned by Hans Gude earlier. Now it belongs to the collection of Finnish National Gallery. Aspelin 1890, 213.

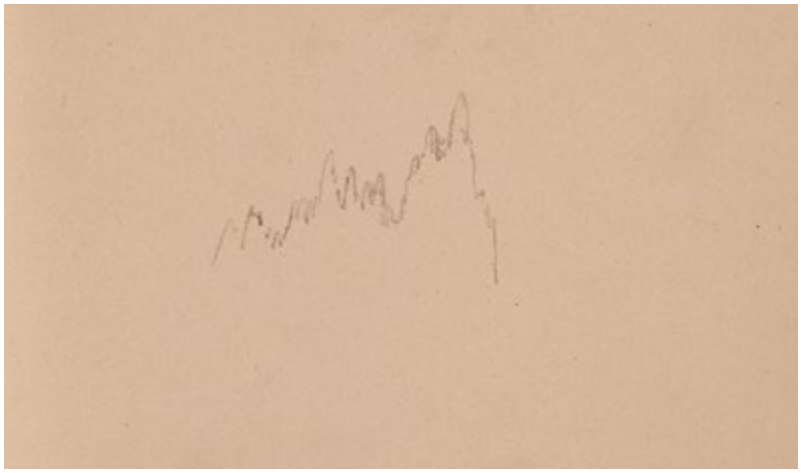
584 No. A I 472:3/22, FNG; Reitala 186, 73.

585 In an early horizontal study, in which Holmberg has focused on the depiction of *cumulus*, *stratocumulus* and *cumulonimbus* clouds in the sky, he has painted a narrow strip of land at the bottom. In the foreground on the right, we can detect a row of poplar trees which leads to a line of undulating hills reaching from the left to middle ground. The study could represent the same landscape from the neighbourhood of Erkrath as seen in the three other paintings. No. A I 471:52, FNG.

45 WERNER HOLMBERG
Sketch of the Road to Erkrath, No. A I 472:3/22, undated
pencil on paper
Finnish National Gallery / Ateneum Art Museum
Photo: Finnish National Gallery / Tero Suvilammi

tal valley. Holmberg spent time there drawing sketches and walking with Johann Wilhelm Zillen, Peter Nicolai Arbo and Sophus Jacobsen in the summer of 1854.[586] The common feature in all of these paintings is the impressive row of poplars by the side of the road. Holmberg studied the forms of the trees and their silhouettes in several sketches he made in the summer of 1854. He started by drawing a simple line in pencil, forming the top of the poplars against the sky.[587] Even from this simple line it is possible to recognise which trees we are dealing with. Accordingly, Holmberg studied the form of a single poplar, as well paying attention to the tree trunk and how the branches grow upwards from it.[588] When looking at poplars from a distance, it is usually their stately figure that we detect against the sky. If we compare the tops of poplars with those of cypresses, as depicted in Schirmer or Achenbach's artworks from Villa d'Este, we can detect a certain kind of similarity. In both cases the tops of the trees are pointed, and yet rather round in form, which

586 Holmberg describes his stay in a letter to his family. Aspelin 1890, 58; Valkonen 1995, 8–10.
587 No. A I 472:4/66, FNG.
588 Nos. A I 472:4/75, A I 472:4/77, A I 472:4/79, FNG.



46 WERNER HOLMBERG
Sketch of Poplars
pencil on paper
No. A I 472:4/66, 1854
pencil on paper
Finnish National Gallery /
Ateneum Art Museum
Photo: Finnish National Gallery /
Kirsi Halkola

makes it difficult not only to discern the separate branches, but also to tell the difference between these two species at a distance. Therefore, it is the foliage of the poplar, or the twigs of the cypress that mark the difference between these species. If we compare the way in which Schirmer depicted cypresses or Holmberg poplars, we can assume that they aimed at rendering the characteristics of these trees by contrasting the deep green tops against the cobalt blue sky, or as in the case of Holmberg placing them next to the yellow rye field.

47 WERNER HOLMBERG
Sketch of Poplars,
No. A I 472:4/67, 1854,
pencil on paper.
Finnish National Gallery /
Ateneum Art Museum
Photo: Finnish National
Gallery / Kirsi Halkola

48 WERNER HOLMBERG
Sketch of a Poplar
No. A I 472:4/75, 1854
pencil on paper
Finnish National Gallery /
Ateneum Art Museum
Photo: Finnish National
Gallery / Kirsi Halkola

49 WERNER HOLMBERG
Sketch of a Poplar
No. A I 472:4/77, 1854
pencil on paper
Finnish National Gallery /
Ateneum Art Museum
Photo: Finnish National Gallery /
Kirsi Halkola

50 WERNER HOLMBERG
Sketch of Poplars
No. A I 472:4/79, 1854
pencil on paper
Finnish National Gallery /
Ateneum Art Museum
Photo: Finnish National Gallery /
Kirsi Halkola

Holmberg, however, was not the only one who was fascinated by poplars. His interest was shared by Victoria Åberg, who painted the poplars in Jacobi Garten, the park that surrounds the Malkasten Artists' Society in Düsseldorf still today. Åberg's artwork, *Park Scenery* (*Puistokuva*, 1860), represents a general view of the park with two poplars in the foreground. In her painting, Åberg does not take an interest in their entire shape, since the trees are not completely visible, but instead she has focused on the trunks, as well as the foliage. The round shape of the poplar leaves is emphasised against the light background, which is actually the sky. In contrast, the other trees and bushes in the park are not distinguishable to the same degree, but rather form a green mass in the background. The work is obviously a study, because Åberg has given some information of the whereabouts and the date when the painting was made; she has written the date (Juli 1860) as well as the name of the place (Jacobi-Garten) in the lower left-hand corner. Additionally, she has marked the species of the trees, poplar (Blod-Poppel in Swedish), next to them.[589]

NORWAY'S MOUNTAIN LANDSCAPES

When Holmberg arrived in Düsseldorf, he assumed that he would concentrate on painting southern landscapes, but the city and its surroundings turned out to be something quite different to what he had expected. To his surprise, it was the Nordic landscapes with their mountains and waterfalls that fascinated the artists there.[590] This trend, as we have seen in chapter three, had actually started with the travelogues and the geological exploration of the Norwegian mountains. It is also noteworthy that at this time Alexander von Humboldt had begun publishing *Cosmos*, and due to the development of geology, people's conception of Earth's geological time was changing tremendously. Accordingly, mountains and waterfalls became an essential part of the repertoire of many of the Norwegian artists who were working in Düsseldorf – one of them being Hans Gude. If Holmberg started with German landscapes in Düsseldorf and continued with Finnish landscapes later on, his instructor Hans Gude's career started in quite a different way.[591] While still in Norway in 1837, the 12-year-old Gude visited Flintoe's exhibition in Christiania, where landscapes from Bergen and Valdres, painted in gouache, were displayed as a Cosmorama. Inspired by these landscapes depicting mountains and waterfalls with staffage figures, Gude became

589 Åberg's artwork belongs to the collections of the Hiekka Art Museum in Tampere; see also Pennonen 2011a, 56.

590 Reitala 1986, 43.

591 Holmberg also visited Norway in 1858, when he married the Norwegian artist Anna Glad. While in Norway, Holmberg made painting trips around Christiania. He visited Oppegård, Hakadal, Ringerike and Ljan, along with Gude. In his pictures from this trip, Holmberg has mostly concentrated on rendering views and close-ups from the valleys. He did not to travel to the high mountains at all. Aspelin 1890, 136; Reitala 1986, 96–100.

81 HANS GUDE
Siebengebirge, 1845
oil on canvas
29 x 41.5 cm
The National Museum of Art, Architecture and Design, Oslo
Photo: The National Museum of Art, Architecture and Design / Morten Thorkildsen

Flintoe's private student at the Drawing School.[592] Gude's interest in depicting Norwegian mountains continued later in his career. In 1841, when he travelled to Düsseldorf to study, Gude started out as a private student of Andreas Achenbach. Interestingly, Achenbach had visited Norway with the Norwegian artist, Thomas Fearnley and the Polish artist, Christian Breslauer (1802–82) in 1839, and on his trip he had composed several landscape studies, which Gude started to copy as a part of his training.[593]

While in Norway, Achenbach, Fearnley and Breslauer made trips to the mountains and fjords, and they also met Dahl, who was visiting his native land. But this was not the first time that Achenbach had visited the Nordic region. Three years earlier, he had been to Sweden, where he had painted several pictures, including the rapids in Trollhättan, as well as some forest scenes. In addition, he had seen the great lakes Vänern and Vättern.[594] These trips led Achenbach to be regarded as the German artist who introduced the Nordic landscapes to the art scene in Düsseldorf. He had, in fact, painted 'Norwegian' landscapes already in 1836 after his trip to Sweden, but at that time he had not yet been to Norway. The popularity of these Nordic landscapes and Achenbach's fascination with Norwegian mountains has been attributed to the new and fresh subjects in the paintings in comparison to the earlier popular views from Italy.[595] But if the earlier developments in Dresden and the new theories introduced in geology in the 1830s are taken into account, it is possible to consider that it was these new discoveries that directed attention to the Norwegian mountains. It was in Dresden that the Norwegian mountains were established as a subject for landscape painting in the German-speaking lands, but it was a subject that maintained its popularity also in Düsseldorf in particular in the artworks of Norwegian artists. It is also noteworthy that it was not only Achenbach who had a continuing interest in Nordic landscape, but also his Polish travel companion Breslauer, who travelled to Finland in ca. 1851–52. This is a fact that has been unknown so far and requires further study.[596]

Later in his life, while studying under Schirmer in the landscape painting class at the *Kunstakademie*, Gude learned the principles of making studies from nature. He put Schirmer's teachings into practice on his first study trip to the Norwegian mountains in 1843, where he travelled with his fellow student, the German artist August Wilhelm Leu (1819–97). On this journey, Gude and Leu walked through Sogn and Lusterfjorden, went up the Hurrungane Mountains, and from there went to the area of Hardanger.

592 Messel 2008, 136.
593 Messel 2008, 137.
594 Sitt 1997, 19, 192.
595 Reitala 1986, 38; Hütt 1995, 138.
596 There is a sketchbook from this trip in the collections of Muzeum Narodowe w Warszawie in Warsaw. On this trip, Breslauer seems to have been travelling in southern Finland. The sketches depict lakeside views mainly and, on account of his notes on the sketches, the most northern place he visited was Tampere. I thank Agnieszka Rosales-Rodriguez for providing me with this information and also Joanna Sikorska for sending me pictures of Breslauer's sketchbook.

52 HANS GUDE
Norwegian Highlands, dated 3 Aug 1846
oil on paper fixed on plywood
23.5 x 44 cm
The National Museum of Art, Architecture and Design, Oslo
Photo: The National Museum of Art, Architecture and Design

By Folgefonna glacier, they met Gude's Norwegian colleague from Düsseldorf, Adolph Tidemand, who was travelling with the German artist, Hermann Kaufmann (1808–89) from Hamburg. In his memoirs, Gude relates how impressed he was by Tidemand and Kaufmann's detailed sketches, and this spurred him to work harder. As a result of this first trip, Gude painted his first picture of the Norwegian high mountains (*Højfjell*) in the winter of 1843–44, and it became his artistic breakthrough in Norway.[597] Furthermore, this journey was the beginning of a series of study trips Gude undertook in Norway in the summers of 1845–49. There he mainly focused on the depiction of the mountains and their geological features, resulting in several pictures of the high mountains from the 1840s and '50s, which reveal the barren nature at high altitude.

In a study of the high mountains (*Høyfjell*, 1846),[598] Gude takes us to the three peaks of Skagastøl in Jotunheimen, which seemed to be

597 Dietrichson 1899, 15, 17.
598 Private collection, Falahat 2003, 148

53 HANS GUDE
Norwegian Highlands, 1857
oil on canvas
79 x 106 cm
The National Museum of Art,
Architecture and Design, Oslo
Photo: The National Museum of Art,
Architecture and Design / Børre Høstland

his favourite area in the Norwegian mountains at the time. There he has placed us, the beholders of the scene, standing on a mountaintop with a wide panorama of undulating mountains and a fjord opening up in front of us. A narrow path leads from the mid-foreground down the slope towards the fjord, which is nestling between the mountains in the middle. The composition is built on both sides of this fjord with the mountains forming different layers: two sloping diagonals at the front, two dark 'lumps' in the middle, a horizontal plateau behind them and finally a curvy line of mountains on the horizon. The area in the foreground is in shadow but the fjord, the mountains and the plateau in the middle ground are lit by sunlight. We can detect some patches of snow here and there, which points to the high altitude. There are no trees, or bushes, just minimal undergrowth. The mountain peaks closest to us are round, but in the distance we can see some sharp-pointed peaks. The sky is covered with *cumulus*, *stratocumulus* and *cumulonimbus* clouds, and a rain shower is approaching from the left, but there is some clear sky visible on the right, just above the sharp-pointed mountain peaks. The small size of this study (24.5cm x 41.5 cm), as well as the free brushstrokes, indicate again that it has been made on the spot. For Gude, these kind of panoramic views from high mountaintops were typical at the time and he painted several of them.[599] They all have a very similar composition, combining wide panoramas with high barren mountaintops, a fjord nestling between them, alternating areas of shadow and light, and the sky staging an interplay between sunlight and rain. These views did not just fascinate Gude, but also his countryman Johan Fredrik Eckersberg (1822–70), who participated in a painting trip with Gude and another Norwegian, August Cappelen (1827–52), in the summer of 1846, painting similar views (*View from Valle in Setesdal*, 1852; *Sunset in the Mountains*, 1865; *View of Jotunheimen*, 1866).[600]

Unlike Gude, Cappelen was more fascinated by forest interiors, and especially decaying trees, as well as pines with peculiar forms caused by the weight of the snow in the winter. Moreover, he preferred to depict his native area in Telemark.[601] But while in Düsseldorf, Cappelen had visited Neandertal in 1849 and painted close-ups of forest interiors in oil, which show steep rock faces and tree trunks covered with moss, as well as luxuriant vegetation such as green and lush ferns by the River Düssel (see Fig. 57).[602] In these pictures, Cappelen has used the light thrusting through the foliage in order to highlight a rugged rock face or the running water at the

599 See Nos. NG.M.04180, NG.M.01979, NG.M.0212, NMO, see Fig. 52 and 53.

600 See Nos. NG.M.0195, NG.M.0478, NG.M.0233, NMO.

601 This phenomenon can be seen in Finnish Lapland, too. For Cappelen's forest interiors, see Nos. NG.M. 00289-1, NG.M. 0289-4, NG.M 00289-9 and for trees, Nos. NG.M.00289-11, NG.M. 00289-14, NG.M. 0199, NMO.

602 No. NG.M.00289-010, NMO; Eggerath 2012, 146–149, see Fig. 57.

57 AUGUST CAPPELEN
Forest Study, presumably 1850
oil on paper fixed on cardboard
40 x 24 cm
The National Museum of Art, Architecture and Design, Oslo
Photo: The National Museum of Art, Architecture and Design

58 AUGUST CAPPELEN
Study for Forest Interior,
presumably 1850
oil on paper fixed on cardboard
49 x 35 cm
The National Museum of Art,
Architecture and Design, Oslo
Photo: The National Museum of Art,
Architecture and Design

bottom of the gorge. Using a similar composition varying between vertical and horizontal format, Cappelen depicted massive rock faces in Norway, as in his *Study for Forest Interior* (*Skogstudie med bratt fjellskrent,* ca. 1850) or *Landscape Study with Decaying Trees* (*Skogstudie,* ca. 1851).[603] In these artworks, Cappelen has focused on rendering the rocks, trees and vegetation with a sky that is less dramatic, in fact, it is just a blue or light grey background for the trees. He seems to have been inspired by old pines and barkless dead pine snags with grey twisting forms in particular. Cappelen's œuvre consists of fragmentary close-up studies in watercolour and pencil sketches of rocks and decaying trees.[604] As Konttinen points out, Cappelen's forest interiors obviously inspired Churberg. In 1871, she painted a copy of a forest pond, *Metsälampi*, which Cappelen had painted in Myrhull.[605] Also

603 Nos. NG.M.00289-015, NMO and NG.M.00289-016, NMO, see Fig. 58.

604 See, for instance, Nos. NG.K&H.A. 03826, NG.K&H.B.06183, NG.K&H.A. 03823, NG.K&H.A.03840, NG.K&H.A. 03845, NG.K&H.A.03853, NG.K&H.A. 03856, NMO.

605 Konttinen 1994, 79.

her forest interior, *Metsänsisusta* (1874)[606], bears similarities to Cappelen's approach and motifs in general. Holmberg seems to have been fascinated by Cappelen's artworks, too, but this will be discussed further in chapter four. After all, it was Gude and Cappelen's landscapes, in particular, that attracted attention at the exhibition in Stockholm in 1850.

As for Gude's œuvre, there are numerous sketches and studies from his trips in the Norwegian mountains. In several sketches drawn in pencil, he has just outlined the contours of the mountains, focusing on the outer shape, as for instance in *Fjærland Mountains, Seen from Sognefjorden*, on 19. July 1845 (*Fjærlandsfjellene sett fra Sognefjorden*, 19. Juli 1845), or *From Sognefjorden*, July 1845 (*Fra Sognefjorden*, Juli 1845).[607] These sketches follow the ideas and instructions as given by Carus on how to reveal the characteristic formations of mountains according to their physiognomy, as discussed earlier in chapter three.[608] The delineation, as such, can be seen as following Humboldt's ideas about the characteristics of landscape. If compared to the studies Gude made in watercolour or oil, the latter reveal even better the rugged and edgy forms of the mountains, or rocks and boulders,[609] which he enjoyed rendering due to the emphasised contrast of light and shadow. This is clearly evident in the two studies that he made of the Folgefonna glacier in watercolour and gouache, *Towards Folgefonna from Reiseter*, on 16 and 20 August 1843 (*Folgefonna sett fra Reiseter*, 16. Aug 1843; *Folgefonna sett fra Reiseter*, 20. Aug 1843).[610]

Aside from the trend among artists in Dresden and Düsseldorf for depicting geological formations, Gude's interest in mountain scenes may have been stimulated by his friendship with the brothers Hjalmar Kjerulf (1815–47) and Theodor Kjerulf (1825–88), who were both living in Germany at the time.[611] Like Gude, Hjalmar arrived in Düsseldorf in 1844 to take up art studies, and the following year he became a student of Carl Ferdinand Sohn (1805–67) at the *Kunstakademie*. The same year he made a painting trip to Sognefjord and Hallingdal with Gude. Hjalmar was also fascinated by geology and managed to write a text on the geography of Norway before his early death in 1847. By contrast, his younger brother Theodor was a geologist who studied in Heidelberg and Bonn in 1851. While in Germany, Theodor visited the Eifel and Harz regions. Later, he became a professor of geology and worked as the first Director of the Geological Survey of Norway. In this role, he contributed to the mapping of Norway's bedrock.[612] On account of this, I claim that it is very likely that

606 This artwork belongs to the collections of Lauri and Lasse Reitz Foundation, Helsinki.

607 Sketch book No.13, B.6526, NMO.

608 Carus 2002 [1815–1824], 137.

609 *Study of a Boulder* (*Studie av kampestein*), No. NG. K& H. B.03122, NMO.

610 Nos. NG.K&H.B.03144 and NG.K&H.B. 03156, NMO, see Fig. 54.

611 Theodor's wife Marie and Hans Gude's wife Betsy were sisters.

612 Dietrichson 1899, 25–26; Alfsen 2013; Bryhni 2009.

54 HANS GUDE
Towards Folgegonna from Reiseter, dated 16 August 1843
pencil and watercolour
27.4 x 51.4 cm
The National Museum of Art, Architecture and Design, Oslo
Photo: The National Museum of Art, Architecture and Design / Anne Hansteen Jarre

Gude's friendship with the Kjerulf brothers directed his interest in certain features of the Norwegian mountains and its mountain landscapes. Concerning Gude's career later in his life, he did not return to Norway to make study trips as regularly as before.[613] The subject of his landscapes changed and, in a way, he descended from the mountaintops to sea level by beginning to depict seascapes, mainly during the 1870s.[614]

There is, furthermore, another interesting feature in Gude's artworks of the Norwegian mountains, since he did not focus on the mountains alone, but made several studies of clouds and atmospheric phenomena in the same spirit as Dahl. There is a clear difference though, as Gude's approach to landscape is more naturalistic, reflecting the spirit of Düsseldorf naturalism. The clouds form an essential part of his landscapes and they play a key role in the creation of atmosphere and mood, which is accompanied by a varied play of light and shadow. The sky usually takes up

613 Messel 2008, 137.

614 For Gude's later œuvre, see for example *Along the Coast. Gude and His Students around 1870* (2016) which mainly deals with Gude's work and art in Karlsruhe in the latter half of the 1860s and '70s.

about two-thirds of the surface, and it is often divided into two parts: half of it is sunlit, with puffy white *cumulus* clouds, while the other half is covered with dark *stratocumulus* and *cumulonimbus* clouds forecasting rain and thunder, as for example in *At Skagastølen* (*Ved Skagastølen*, 1847) and *Norwegian Highlands* (*Høyfjell*, 1857).[615] Gude's first teacher in Düsseldorf, Andreas Achenbach, also studied reflections of light, clouds and atmospheric phenomena. Achenbach had clearly seen Turner and Constable's paintings on his trip to England in 1838, and the next year he travelled to Norway. On this trip, Achenbach made several pictures of Norwegian mountains and waterfalls. Although these landscapes are said to be products of his imagination, they nevertheless attracted attention to Nordic landscapes in Düsseldorf.[616] Actually, it is very likely that Achenbach's pictures inspired Gude not only to study geological formations, but also the interplay of light and shadow, as well as atmospheric phenomena with clouds – a subject that he later returned to at Lake Chiemsee in Bavaria. This is clearly indicated in both his painting *Thunder Clouds over the Chiemsee* (1867)[617], which depicts thunder approaching the lake, and in the *Study of Sky* (1873).[618]

55 HANS GUDE
Thunderclouds over Chiemsee,
dated 26 Aug 1867
oil on canvas fixed on cardboard
19 x 31.5 cm
The National Museum of Art,
Architecture and Design, Oslo
Photo: The National Museum of Art,
Architecture and Design

615 Nos. NG.M.01979 and NG.M.1979, NMO, see Fig. 53.
616 Sitt 1997, 28; Wappenschmidt 1997, 62.
617 Andree 1979, 322; No. NG.M. 00635-004, NMO.
618 Haverkamp 2003, 49; No. NG.M.4248, NMO.

56 HANS GUDE
Study of Clouds, 1873,
oil on canvas fixed on cardboard
The National Museum of Art,
Architecture and Design, Oslo
Photo: The National Museum of Art,
Architecture and Design

Before the invention of photography, making sketches and studies was fundamentally important for landscape painting. This naturally included clouds due to their ephemeral nature. Although some artists had used photography as visual research as early as in the 1840s and 1850s, it only began to gain more importance in the 1860s, and in the 1870s and 1880s it even replaced drawing in the work process of some artists.[619] The use of photography in relation to landscape painting in Düsseldorf has not been investigated very thoroughly, but there is evidence that Schirmer,[620] Andreas Achenbach and Gude would have used photography. Also the Swedish artist Marcus Larson, who studied in Düsseldorf with Andreas Achenbach, is known to have used photographs as an aid to his work.[621] In his memoirs Gude describes using photographs and mentions how he used them a lot before he moved to Wales. He found they supported his memory, though there were several problems to overcome with them. For one thing, he thought the quality was not good enough, and it was not possible to take photos quickly. The exposure did not work too well either, nor was there any room for developing pictures in the light summer nights in Norway. These issues led him to revert to the old method of making larger pencil sketches and studies.[622] It has to be mentioned though that Gude collected his artworks in the form of two photo albums, the so-called *Liber veritatis*, which belong to the collections of the National Gallery in Oslo. On the whole, photography gained popularity in the Rhineland, and some artists even stopped painting to become photographers.[623]

EUGÈNE VON GUÉRARD DISCOVERING AUSTRALIA

As we have seen in this chapter, the walking tours and travels that artists made played an essential part both in their initial training and subsequent professional careers. These trips were not restricted to Europe, as in Düsseldorf there were several artists who literally took up Humboldt's challenge and travelled to faraway places in more exotic countries. Some of them participated in scientific expeditions, such as the Austrian artist Eugène von Guérard, (1801–1901), who travelled to Australia in 1852, stayed for thirty years, and returned to Europe only in 1882. Von Guérard arrived in Düsseldorf in 1838 and he was Gude's fellow student, but he left the town a year before Holmberg arrived. We can assume that his expeditions in Australia were well-known among the artists in Düsseldorf. Von Guérard docu-

619 For the use of photography in landscape painting in France, for example, see Weisberg–Rauzier 2010, 30–43.

620 In 1851, Schirmer writes about receiving some photographs from another German artist who had been assigned to take pictures of special buildings and situations by a ministry. Schirmer states how these pictures would complete his studies. '*Hier fand ich einen deutschen Künstler, der* […] *vom Ministerium den Auftrag hatte, Photographien von allen merkwürdigen Architekturen und Situationen zu nehmen* […] *und erbot sich freundschaftlich, mir einige Abdrücke von Vaison nach Düsseldorf zu schicken, was mir sehr viel Wert wäre, um meine Studien zu ergänzen.*' J. W. Schirmer's letter to Emilie Schirmer on 5 September 1851; citation in Ausstellungskatalog, Jülich 1982, 109 and Brakebusch 2009, 7.

621 In the collections of the National Museum in Stockholm, there is a photograph of a boulder by C.G.W. Carleman, which Larson used. According to Gunnarsson, Larson did not speak about the use of photographs very openly. For this, see Gunnarsson 1998, 199, picture 112.

622 Dietrichson 1899, 59.

623 Baumgärtel 2011, 46; see also Beiersdorf 2019.

mented his journeys very carefully in his sketchbooks, which the Australian art historian Ruth Pullin has studied.[624] While in Düsseldorf, he painted pictures of places that were popular among other landscape artists, such as the forest in Grafenberg or the Neander Valley, focusing on the same details as Schirmer and Lessing, and many others before him. He also travelled to the Eifel, where he depicted the rock formations at Gerolstein and the circular lakes formed in its ancient volcanic craters. Pullin points out that, in addition to the great number of sketches drawn from nature, painting directly from nature formed an essential part of von Guérard's practice in Düsseldorf. Thus he became an open-air painter, *Freilichtmaler*, following in Schirmer and Lessing's footsteps.[625] As a matter of fact, he worked very much in the spirit of Düsseldorf naturalism as described earlier and stated, for example, by Holmberg. But before Düsseldorf, von Guérard had travelled in Italy with his father Bernard (1771–1836), who was an Austrian miniaturist. In Rome, von Guérard studied under Bassi (1830–32) and made acquaintance with the Nazarene painters. But what is more interesting, after Rome, von Guérard spent six years in Naples and was introduced to Hackert's work and ideas, and there he became interested in volcanic geology. He also made an extensive expedition to Sicily. Notwithstanding, Pullin argues that it was Joseph Anton Koch who had the most profound and enduring impact on von Guérard's career. Koch developed a keen interest in geology early in his career and, like Hackert, he recognised the importance of the new developments in the natural sciences for landscape painting.[626] In this sense, von Guérard can be regarded as a link between Hackert's ideas and Düsseldorf.

While living in Australia, von Guérard undertook a number of expeditions and participated, along with his many sketching trips, in scientific and government expeditions. In true Humboldtian spirit, he travelled with the German polar explorer and scientist Georg von Neumayer (1826–1909) and the Australian explorer, geologist and anthropologist, Alfred William Howitt (1830–1908), thus having the chance to see at first hand how these scientists worked. Pullin writes that von Guérard 'trekked into some of the most remote and inaccessible regions in the south-eastern colonies that were among the most spectacular and geologically and botanically significant'.[627] In his sketch books and numerous landscape works, von Guérard portrayed the natural wonders of Australia, paying particular attention to botanical and geological features. Despite the geographical

624 Ruth Pullin has covered the life of von Guérard in her doctoral thesis *Eugène von Guérard and the Science of Landscape Painting* in 2007. Von Guérard's role as a participant on scientific expeditions, and as one of the pioneers depicting Australian landscapes, has been handled in *Nature Revealed* in 2011.

625 Pullin 2007, 85.

626 Koch's painting *Schmadribach Fall* (*Schmadribachfall)*, of which he painted different versions in 1805–11 and 1821–22 (Museum der Bildenden Künste, Leipzig; Neue Pinakothek, Munich), has been regarded as an example of the new concepts in the natural sciences, and thus offering a new vision for landscape painting. Pullin 2007, 24; for the importance of Koch's painting, see Mattos 2004 and Mitchell 1993, 131–134; compare with Tang who talks about a cultural landscape in this context. Tang 2008, 198–201.

627 Pullin 2011, 8–10.

distance, it is interesting to notice how the motifs of several works he made in Australia bear a remarkable resemblance to his earlier sketches, studies and paintings.[628] It is noteworthy that in 1870 his album, *Eugène von Guérard's Australian Landscapes*, was recognised for its geological and botanical content by Ferdinand von Hochstetter, the President of the Royal Geographical Society in Vienna.[629] As mentioned earlier in this chapter, instead of trying to match Australian nature with European, as many predecessors had done, von Guérard aimed at rendering it 'as it is', following the principles of the Düsseldorf landscape artists. Furthermore, von Guérard did not restrict his works to landscapes but also documented everyday life in the expedition camps.[630] Mid-nineteenth century Australia, with its unknown territories – at least to westerners – offered a great deal to discover both for scientists and landscape artists. At the time, when taking photographs was still a slow and painstaking process, sketch books, with their meticulously rendered pictures of landscapes, vegetation and animals, provided excellent documentation material. The life and artworks of von Guérard can be regarded as the results of his scientific interest, but also of his role as a 'history painter of nature'. Moreover, they depict the colonialism of the nineteenth century.[631] The expeditionary spirit was kept alive later in the century, for example, by the German military painter Theodor Rocholl (1854–1933), who travelled to Asia Minor and China. On the German expedition to China in 1900–1901, he documented the trip in a form of a picture story.[632] Despite their European roots, it is interesting to note that both von Guérard and Rocholl were prepared to travel to such faraway places, which were still quite unknown or difficult to reach. In this sense, the situation with American artists was a bit different; after finishing their studies on the old continent, they often returned to their native country.

AMERICAN VISIONS OF LANDSCAPE

Although described as a universal genius, it may be difficult to appreciate Humboldt's significance as a naturalist from today's perspective. His influence reached far beyond German-speaking territories. In his own time his fame was said to be likened only to that of Napoleon, thanks to his expeditions and writings.[633] In the United States, English translations of his writings were published almost at the same time as the originals in German, and they were widely read and inspired many people. Humboldt visited

628 See, for instance, von Guérard's volcanic landscapes from the Eifel and compare with Victorian landscapes in Australia.

629 Pullin 2007, 10.

630 Pullin 2011, 9, 26.

631 Von Guérard's artworks were displayed as examples of colonial landscapes in the exhibition 'Australia' at the Royal Academy of Arts, London, in 2013. For this, see Radford 2013, 92–145.

632 Baumgärtel 2011, 37; Andree 1979, 433.

633 Bunkše 1981, 127.

the States in 1804, and knew many prominent people there personally,[634] including the Swiss-born biologist and geologist, Louis Agassiz (1807–73), who, after Europe, proceeded with his career in the States. Moreover, Humboldt's ideas also appealed to the author, philosopher and naturalist, Henry David Thoreau (1817–62).[635] In terms of the intersection of art and science, Humboldt most importantly had a major impact on American landscape painting. His ideas were conveyed to the American artists by his own writings as well as by John Ruskin, whose treatise *Modern Painters*, published in five volumes (1843–60), gained great popularity.[636] However, Ruskin himself, the 'prophet to America's landscape painters', according to Rebecca Bedell, repudiated the allegation that he would have been influenced by Humboldt's *Cosmos*.[637]

The enthusiasm for geology in the USA, as Bedell describes, developed gradually, and it formed part of a wider fascination with natural history. The natural sciences were not only appreciated for their scientific value, but also their recreational benefits, as were zoology and meteorology, while botany was regarded as suitable especially for women. From the 1830s onwards, it not only captivated scientists, but average citizens crowded into public lectures, and began collecting stones and fossils for their personal mineral cabinets. In fact, geology remained the most fashionable science in the USA for the most part of the century.[638] In the mid-nineteenth-century, there were several places where art and science intersected, geology being just one. Not all aspects of geology were appreciated however, and artists held on to the older conservative discipline, preserving the unity of God and nature, while ignoring Darwin's ideas about material science.[639] Interestingly, the enthusiasm for geology in the States had nationalistic features. Bedell points out how 'Americans had long suffered from an inferiority complex about their continent', because it had no 'historical associations' or 'intellectual and aesthetic stimuli'.[640] This recalls a similar development in Finland, where the lack of great independent history led to the harnessing of landscape, and landscape painting, as a means to pursue the country's historical past in nature; or as in Norway, where nature was made a cultural symbol in order to substitute for the lack of remarkable cultural monuments caused by the country's poverty.[641]

Reflecting this trend, American artists started to incorporate geological details into their paintings in the 1820s. One of the early pioneers who was attracted to geology was Thomas Cole (1801–48). On his

634 For instance, Humboldt met with Thomas Jeffersson, the third President of the United States, and corresponded with him after that. See Wulf 2015, 94–108.
635 Bunkśe 1981, 136.
636 Wagner 1988, 151.
637 Bedell 2001, 49–51; Lubowski-Jahn 2011, 328.
638 Bedell 2001, 3–4.
639 Bedell 2001, xi.
640 Bedell 2001, 5.
641 Lukkarinen 2004, 38–41; Malmanger 1997, 307.

sketching trips, Cole – apart from collecting rocks and fossils for his mineral cabinet – made careful observations concerning the geological history of sites such as the Niagara Falls or Kaaterskill Clove. He made careful notes of his observations in his journals, and annotated his sketches with geological references. And yet, many of Cole's finished pictures still lack precision in the depiction of geological or topographical details, but he seems to have conveyed the general geological character of the place,[642] which appears to follow Humboldt's ideas. Cole's student, Frederic Edwin Church (1826–1900,) became acquainted with Humboldt's landscape aesthetics in the mid-nineteenth century, travelling in his footsteps to Ecuador in 1853 and 1857. Like his role model, Church became fascinated by the tropical vegetation and visited the Chimborazo and Cotopaxi volcanoes. As a result of this journey and in honour of Humboldt, Church painted his most famous work, *The Heart of the Andes* (1859), which has been described as a true Humboldtian landscape.[643] Here the spectator is standing at the foot of a cascade, which is bordered by lush vegetation on both sides in the foreground. From there the view continues along a plain valley towards the mighty forms of the Andes, which stand in the background. The plants and trees by the water are depicted meticulously following Humboldt's geography of plants. As a matter of fact, Church took all the elements the picture contains from nature in the area around Mount Chimborazo, the snow-covered peak of which can be seen in the background on the left. Church's painting represents a view of nature that conveys a total impression, as described by Humboldt, and yet, it is not a true-to-life landscape.[644] Hence, a 360-degree panorama of the place is squeezed within the frames of the painting, but this format as such, refers to Humboldt's idea of *Naturgemälde* in the way he introduced it in the profile picture of the Cotopaxi and Chimborazo mountains in his *Geographie der Pflanzen in den Tropen-Ländern; ein Gemälde der Anden* (1807), as discussed earlier. A similarly compact, or condensed, format of a mountain landscape to Church's can be seen in Dahl's painting, *View from Stallheim* (*Fra Stallheim*, 1842). But in its scientific accuracy, as for instance with the depiction of the vegetation in the lower right-hand corner, Church's picture actually contains many elements that resemble Düsseldorf art at that time. In fact, it seems that these artists worked in such a way that they collected the details of nature within one painting, in order to create a *Naturgemälde* as a synthesis of the place they were depicting.

642 Bedell 2001, 19–20.

643 After finishing the painting, Church planned to send it to Humboldt in Berlin, but unfortunately Humboldt died before that. The work was exhibited in London two months after Humboldt's death and became a great success. Bunkśe 1981, 135; Diener 1999, 150; for the reception of the painting in the USA, see Bedell 2001, 75–81.

644 Diener 1999, 150.

When discussing what attracted American artists to Düsseldorf, we should not forget the role played by Andreas Achenbach and Lessing, nor the influence they had on their art.[645] This is clearly evidenced by the memoirs of the American artist Thomas Worthington Whittredge, who studied in the city in 1849–54.[646] Whittredge explains how Düsseldorf art had become famous in New York, thanks to an exhibition there in 1849 of 56 artworks by Düsseldorf artists, arranged by a German-born private collector, John Godfrey Boker (originally Johann Gottfried Böcker), the German consul. The location of the exhibition came to be known as 'The Düsseldorf Gallery', and it operated from 1849 to 1862, displaying Düsseldorf art.[647] The appeal of Düsseldorf art shows also in the motifs the Americans painted while still in Europe. In contrast, after moving back to the States, they generally began depicting local sights and it seems that they focused more on topics related to geology and revelations made in its field. As an example of this change, Virginia Wagner mentions two artworks by Albert Bierstadt (1830–1902). While in Düsseldorf, he painted 'pastoral landscapes', such as *Approaching Storm* (1854), but once back in the States, Bierstadt shifted to 'geological rendering' as in his Niagara Falls (ca. 1869).[648] One of the popular geological sights that several artists depicted was the Hudson River valley. In this context, it is important to remember that there were still areas to be 'discovered' in North America at the time, and due to the popularity of geology in the States, there were several artists who took part in expeditions. In Humboldtian spirit, Whittredge participated in the 'Pope Expedition' to Colorado and New Mexico in 1866, and Albert Bierstadt travelled through the Rocky Mountains,[649] where he also practised the use of stereoscopic photography.[650]

645 Achenbach attracted several American artists to Düsseldorf, although, according to Whittredge, he refused to teach them. In any case, many students stayed at his home in Jägerhofstrasse, and Hans Gude also mentions him as his first teacher, as we have seen earlier. Groseclose 1997, 174, 177–178.

646 Prior to his arrival in Düsseldorf, Whittredge had been in Paris trying in vain to find a suitable landscape artist as a teacher. His friend Church was also staying in Paris at the time. Whittredge 1976 [1849–54], 30.

647 Whittredge 1976 [1849–54], 32; Stehle 1976, 26, 28.

648 Compare this with Mattos, who sees North American landscape painting of this time to be 'strongly impregnated by an aesthetic of the *sublime*', whereas Brazilian production having relationship with Hackert and his disciples. Wagner 1989, 155; Mattos 2004, 155.

649 Arne Neset uses the description 'the *picturesque* wilderness' for the landscape art of the Hudson River School, and, in comparison, 'the *sublime* wilderness' for the landscape art of the Rocky Mountain School, see Neset 2009, 56–65.

650 Baumgärtel 2011, 37.

5
FACING FINNISH NATURE

> *Every zone of vegetation has, besides its own attractions, a peculiar character, which calls forth in us special impressions. Referring here only to our native plants, I would ask, who does not feel himself variously affected beneath the sombre shade of the beech, on hills crowned with scattered pines, or in the midst of grassy plains where the wind rustles among the trembling leaves of the birch?*[651]

In his citation above, Humboldt talks about the peculiar character each region has due to its vegetation, using different kinds of European trees as examples. He writes how different kind of trees affect us in different ways. According to their natural environment, trees offer us varying experiences of nature. In the same sense, trees play an important role in Düsseldorf landscape painting and contribute to conveying ideas, feelings and even facts about the natural conditions of landscapes. I would suggest that this is one reason why Finnish artists depicted different trees in Germany to those they depicted in Finland, as we shall see here later. When examining the correspondence of Finnish artists and looking at their artworks, it seems that at first they were fascinated by Düsseldorf, German nature and culture in general, but over time they started to long for home. They wanted to depict Finnish nature, but why was it so important for Finnish artists to travel to Finland from Düsseldorf and depict its nature? They claimed that Finnish nature could offer them qualities they were not able to find in Germany, and it was in Finland that they could find the originality that was required in Düsseldorf. They were also urged to travel to Finland by Topelius and Fredrik Cygnaeus (1807–81), two of the leading figures in Finnish cultural life at the time. Besides his prominent role in academic life, Topelius can be regarded as one of the gatekeepers in the field of the arts, due to his role as Secretary

651 *Jede Vegetationszone hat außer den ihr eigenen Vorzügen auch ihren eigenthümlichen Charakter, ruft andere Eindrücke hervor. Wer fühlt sich nicht, um an uns nahe vaterländische Pflanzenformen zu erinnern, anders gestimmt in dem dunklen Schatten der Buchen, auf Hügeln, die mit einzelnen Tannen bekränzt sind, und auf der weiten Grasflur, wo der Wind in dem zitternden Laube der Birken säuselt?* Humboldt 2004 [1845–1862], 233; Humboldt 1852, 97.

of the Finnish Art Society. Furthermore, he started to write art reviews in his newspaper *Helsingfors Tidningar* in the 1840s. In the summer of 1856, he made a Grand Tour of Europe and also visited Düsseldorf, where he met the Finnish artists studying there at the time – Holmberg, among others. The following year, he published his travel account, describing this visit in his newspaper.[652] Along with the Art Society's Chairman, Fredrik Cygnaeus[653], Topelius urged artists who were studying in Düsseldorf at the time to look for motifs in their native Finland. Following the principles of naturalists in Düsseldorf, Finnish landscape artists studying and working in Düsseldorf travelled in Finland in the summertime to make sketches and studies on location, if possible, which would later be used in their artworks.

If we take Holmberg, for example, while staying in Kurhessen in the summer of 1855, he wrote home to his sisters, complaining that everything there had been shaped by human hand through which nature had lost some of its free and picturesque qualities. Furthermore, he claimed that in impoverished Finland an artist was able to find forests that nobody else but the Creator had touched.[654] By our modern standards, we do not consider nature in Holmberg's artworks to be untouched, because there is often some indication of human influence. However, untouched nature was the ideal at the time, partly because of increasing industrialisation and urbanisation. Having spent two years in Germany without visiting Finland, Holmberg's letter also reveals his homesickness, thus making the grass look greener in Finland. For Topelius, an ideal Finnish landscape was a cultural landscape that was framed by a natural landscape, but which conveyed the influence of humans. Unlike Holmberg, he did not actually appreciate a natural landscape devoid of the human touch, because it was man's God-given task to cultivate the land. But Topelius's concept of the ideal Finnish landscape was not that simple, because he also appreciated wilderness, which – for its part – represented what was genuine in Finland for him.[655] It is important to keep in mind that Finnish nature achieved an intrinsic value in Finnish literature in the nineteenth century, and the most sophisticated form of it was landscape. Nature was regarded as something real and valuable, whereas culture was superficial – nature constituted the static core, but culture was only the ever-changing surface. There was a contradiction between this Romantic approach and the idea of continuous change and development as introduced according to Hegel's and Snellman's more materialistic ideology.[656]

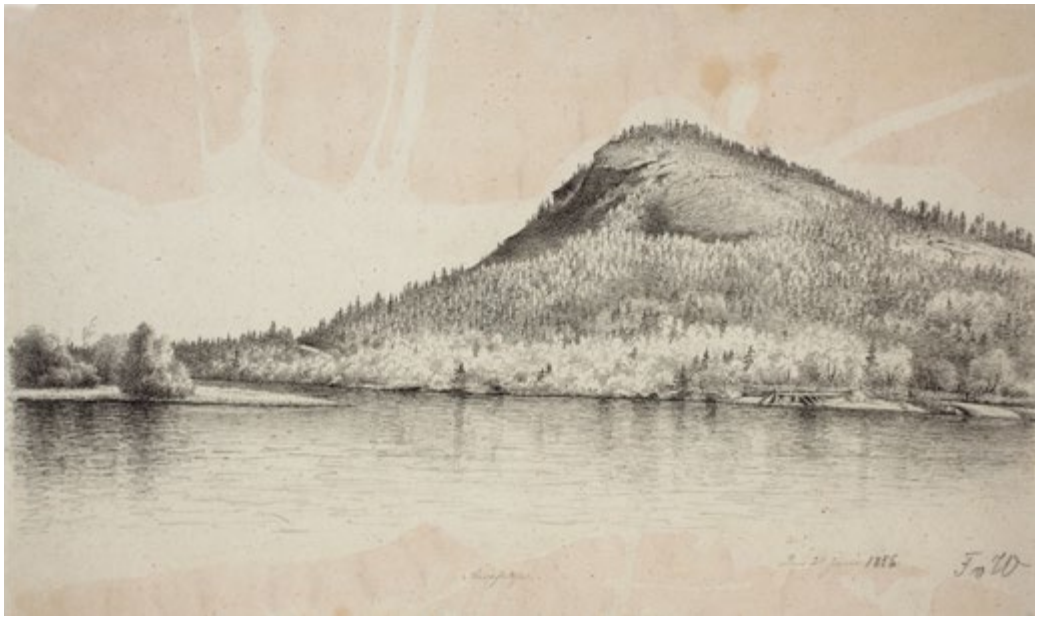
652 *Helsingfors Tidningar* on 24 January 1857; Aspelin 1890, 87–88.

653 Cygnaeus also visited Düsseldorf in the summer of 1856. He supported the eighteenth-century concept of dividing art into five categories, according to which history painting was regarded as the highest form of art, portraits the second, genre painting the third and landscapes as well as still-lifes the fourth. As to landscapes, a native landscape was more appreciated than a landscape composed abroad. Aspelin 1896, 88; For Cygnaeus's concept of art, see Pettersson 2008, 145–154.

654 '[…] *Ja något väl ansadt är allting här, hvarje fläck begagnad, hvarje träd räknadt och putsadt, öfverallt ser man menniskohanden och derigenom förlorar naturen något af det fria och pittoreska. Tacka till vår fattiga Finland, det äger skogar, som ingen annan än Skaparens hand vidrört; de måste innesluta ovärdeligaskatter för en målare.*' Holmberg's letter to his sisters on 5 July 1855. SKS.

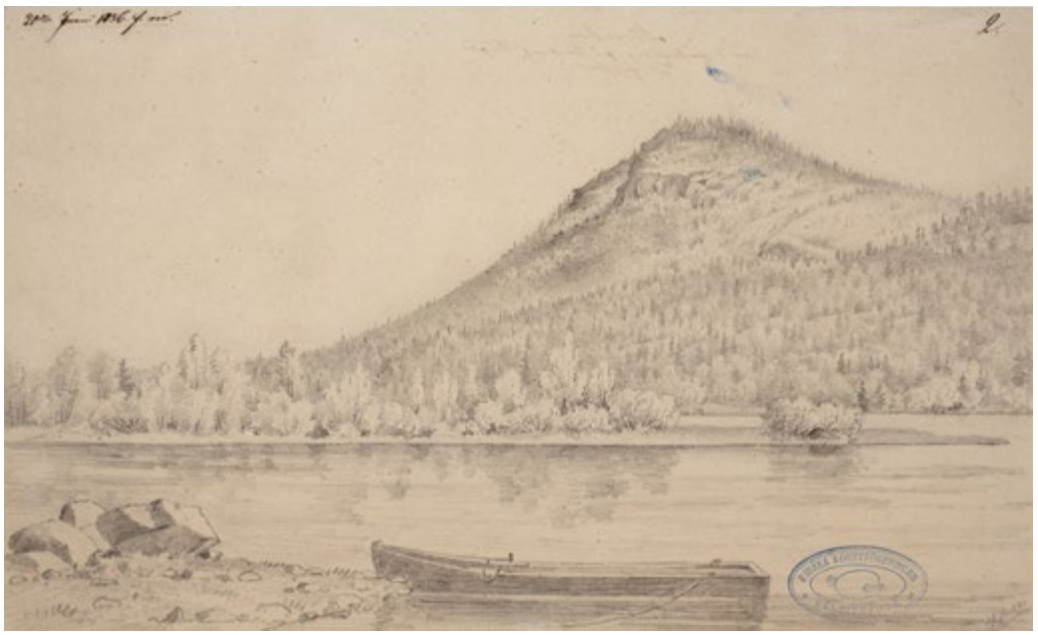
655 Tiitta 1994, 303–304.

656 Along with descriptions of nature, Finnish language constituted a special resource. Lassila 2000, 11, 13.



△
60 FERDINAND VON WRIGHT
Sketch from Aavasaksa, 1856
No. A I 616:8, pencil on paper
Finnish National Gallery /
Ateneum Art Museum
Photo: Finnish National Gallery /
Tero Suvilammi

61 MAGNUS VON WRIGHT
▽ *Sketch from Aavasaksa*, 1856
A I 33:35, pencil on paper
Finnish National Gallery /
Ateneum Art Museum
Photo: Finnish National Gallery /
Tero Suvilammi



62 MAGNUS VON WRIGHT
Sketch of Rocks at Aavasaksa, 1856
No. A I 33:44, pencil on paper
Finnish National Gallery /
Ateneum Art Museum
Photo: Finnish National Gallery /
Tero Suvilammi

Another factor which made both Finnish and Norwegian artists look for motifs in their native countries was the ever-increasing nationalism in these countries. Nationalistic ideas swept across Europe in the nineteenth century, and they did not leave artists in Düsseldorf untouched, but inspired them to look for motifs in their native countries. At the same time, landscape art was also regarded as a cultural expression of national identity and in Finland it constituted a part of the nation-building programme. Landscape art was used to illustrate the abstract idea of a nation by giving it a recognisable form and a national imagery, just like historical monuments.[657] In this frame of reference, Topelius again played an important role as an educator and civiliser of the Finnish people. It is noteworthy that Holmberg and Churberg knew Topelius personally, and Churberg especially was a great admirer of his. Therefore, it is clear that both Holmberg and Churberg would have followed Topelius and Cygnaeus's advice to come and paint in Finland. Their painting trips were made mostly in the southern and central parts of Finland, and to a certain

657 For this, see Ripatti 2011.

extent to eastern Finland. It was only later in the century that artists started to explore the northern parts of Karelia in the east. Lapland remained mainly outside the scope of artistic interest, with the exception of the three von Wright brothers Magnus, Wilhelm and Ferdinand. One reason for this was simply poor access, because there were no railways.[658] The northern districts of Finland started to attract artists' attention only at the turn of nineteenth, and twentieth centuries, once the railway network extended to Rovaniemi.

THE FIRST ARTISTIC EXPEDITIONS IN FINLAND

On the whole, Finnish artists did not participate in scientific expeditions in the same sense as Eugène von Guérard, or the American artists; but there are a few exceptions, such as the three von Wright brothers, who were fascinated by birds especially and took great interest in ornithology. Magnus, the eldest, made a trip with his youngest brother Ferdinand to Nordkalotten (the Cap of the North) in Lapland in 1856. The scientific nature of this trip was substantiated by the grant they were awarded by the Finnish Society of Sciences and Letters, which also published the results of the trip in its *Bidrag* publication series. Magnus took notes in his diary throughout the journey.[659] Although the primary purpose of this trip was bird-watching, Magnus and Ferdinand also shot birds to be stuffed and included in their own collections.[660] Furthermore, their attention was not focused on birds alone, because, from the point of view of bird-watching, their trip would not have been considered successful. Summer was not the best time to follow bird migrations, so the brothers also made sketches of landscapes while travelling. As evidence of this, they both sketched Aavasaksa, a mountain near Tornio (Torneå in Swedish), and some other more unusual geological formations, which shows their interest in geology.[661] In fact, Magnus's interest in Aavasaksa may have been aroused by the pictures that Lennart Forstén made for Topelius's *Finland framställdt i teckningar*. In this context, it is also notable that their brother Wilhelm von Wright (1810–87) had been to Lapland even before this time. Wilhelm, who was living permanently in Sweden at the time, travelled with the Swede Carl F. Stenius as far as the Arctic Ocean in 1832, and their trip was initiated by Bengt F. Fries (1799–1839) and the *Svenska Jägareförbundet* (Swedish Hunting Association). Wilhelm described his journey in an article he wrote for the magazine *Tidskrift för Jägare och Naturforskare* later the same year.[662]

658 The first railway in Finland was built from Helsinki to Hämeenlinna in 1862.

659 For this, see von Wright 2001 [1850–62], 245–260

660 Leikola & Lokki & Stjernberg & Brusewitz 1989, 79.

661 For Ferdinand's sketches, see Nos. A I 616:7, A I 616:8, A I 616:9, and A I 33:43, FNG. For Magnus, see No. A I 33:35, FNG. In addition, Magnus made a close-up sketch of the rocks at Aavasaksa, see No. A I 33:44, FNG. Ferdinand also showed interest in geological formations two years later while in Dresden in 1858. There he walked along the River Elbe and saw the Lilienstein and Königstein mountains that Caspar David Friedrich had depicted. He also visited Bielagrund and Prebischthor in the Saxon Alps. For Ferdinand's sketches from Dresden, see Nos. A II 818:1/22 and A II 818:1/30 in his sketchbook, FNG; see also Pennonen 2017.

662 Leikola & Lokki & Stjernberg & Brusewitz 1986, 63; Leikola & Lokki & Stjernberg & Brusewitz 1989, 79.

59 FERDINAND VON WRIGHT
A View from Haminalahti, 1853
oil on canvas, 88 x 131 cm
Finnish National Gallery / Ateneum Art Museum
Photo: Finnish National Gallery / Jukka Romu

Generally speaking, Lapland had been an unknown territory until the turn of the eighteenth and nineteenth centuries. Then, it was the travelogues of Skjöldebrand and Acerbi which transformed the idea of Lapland from being only a frightening area to an exotic place with attractive views. It was the mountains, the Northern Lights, waterfalls and steep rock faces at Aavasaksa, Enontekiö and Pallas mountain, as delineated by Skjöldebrand, which contributed to this change of view. Holmberg made his first paintings in oils after Skjöldebrand, depicting Midsummer night in Tornio and the aurora borealis in 1849.[663] As stated by the Finnish scholar Tuija Hautala-Hirvioja, who has studied the depiction of Lapland in the art-

663 Reitala 1986, 23.

works of Finnish artists, these two phenomena had already been connected with Lapland and the north in the seventeenth century.[664] Holmberg, however, never visited Lapland and, according to Hautala-Hirvioja, he just followed Skjöldebrand's Romantic view of it, rendering the town as 'the last bastion of civilisation before entering wild Lapland'. Tornio, which was founded in 1621 by the Swedish king, Gustav II Adolf, lies on the border between Finland and Sweden at the very tip of the Bay of Bothnia, and it used to serve as a gateway to Lapland until the end of the nineteenth century. It was easy to access by sea and then travel farther along the river that runs through the town. Over time, other routes replaced Tornio, as it was easier to reach the most northern parts on Hurtigruten ships, which still travel along the coast of Norway today, or by train via Kemi to Rovaniemi. At first, Lapland did not attract large crowds. It was only at the turn of the century that Lapland became part of the national imagery, and even Topelius included views from there in his book *Suomi 19:llä vuosisadalla* (*Finland in the 19th century*, 1893).[665] The pictures of Lapland, 1810–90, comprised both imagination and reality. Thanks to scientific and artistic interest, tourism also opened up to Lapland, making Aavasaksa one of the earliest tourist attractions in Finland.[666]

TOPELIUS'S VIEW OF FINLAND

As stated by the Finnish scholar Maunu Häyrynen, a panoramic view from some inner part of Finland, where the spectator is standing on a hilltop, overlooking lakes and forests towards the horizon, became an iconic subject of a Finnish national landscape in the nineteenth century.[667] An explicit example of this kind of landscape is presented by Ferdinand von Wright in his *A View from Haminalahti* (*Näköala Haminalahdelta*, 1853).[668] There he has depicted a view from the top of a high rock, Haminanvuori, looking over Lake Kallavesi, in the province of Savonia. There is no human staffage in the picture, but a group of sheep are seen on a rock in the midforeground. Along with the sheep, von Wright has placed different trees on the rock, too. In the foreground on the left, there are some spruces, and to their right, a group of trees consisting of a tall pine and some shorter birches and spruces. Closer to the spectator and farther to the right, there is a tall pine, and next to it on the edge of the picture, a rowan tree with red berries spread across its branches. In front of the rowan tree, a black

664 In the case of Skjöldebrand, he did not see the Northern Lights in Lapland, but in the surrounding area of Turku in southern Finland. Hautala-Hirvioja 2005, 162. See also Reitala 1986, 13, 23.

665 Hautala-Hirvioja 2005, 162, 164–165.

666 Hautala-Hirvioja 2005, 173.

667 Häyrynen 2005, 13.

668 No. A I 57, FNG; Jukka Ervamaa first recognised the epoch-making meaning of this painting in the history of Finnish landscape painting. See Ervamaa 1972.

sheep is eating the leaves of a small bush or a tree, which could also be a rowan tree. The top of the rock is covered with undergrowth of heather with lilac flowers, greyish lichen, greenish moss, dark green twigs of lingonberry and yellowish tufts of dry hay. To the left of the sheep, we can see a part of the bay of Haminalahti, and on its western shore, just outside the picture, is the childhood home of the von Wright brothers, Hovi. By contrast, farther to the right of the sheep, past the tall pine, we can see another shore of the lake. There, again outside the scope of the view, lies Puijo hill, and behind it, would be the city of Kuopio.[669] Straight ahead to the other side of the lake in front of us, we can see a large island, Salonsaari, with two high, tree-covered hills, Putaanvuori and Huuhkainvuori. Between these hills and the lake shore, there are some fields, indicating that there is human habitation on the island, as well as smoke rising from a hut in the middle of the picture. If we take a closer look, we can detect some other buildings to the right of the hut and also by the lake. There are also some cows out to pasture by the lake. The sky is covered with light *cirrostratus* and *stratus* clouds, and the surface of the lake is calm, reflecting the colours of the setting sun to the right. This is a picture of a serene and peaceful summer evening, and yet the summer is already turning towards autumn, as is suggested by the red colour of the berries on the rowan tree, and the yellow-greenish colour of the fields on the island. Presumably the picture depicts a summer evening in August. It is noteworthy here that von Wright has depicted every detail with great scientific precision, which is typical of him and his brothers Wilhelm and Magnus. Although it is a question of a view painted from nature using sketches, von Wright sticks to the details, such as the berries in the rowan tree, or the cows by the lake, and paints them on the canvas as he knows them, not as he necessarily sees them. This differs from Holmberg, who started to change his colours gradually according to his cognition, and thus began to abandon the use of local colours. This phase in Holmberg's career, however, was cut short by his early death.

As such, von Wright's painting represents a landscape that corresponded to Topelius's idea of Finnish nature – for Topelius it was simply a symbol of Finland.[670] Yet it not only reflected the Finnish soul, but represented a new verse in the Finnish national anthem as well. Based on this, Tiitta claims that the idea Topelius had about Finnish landscape can be studied using landscape paintings. Here, as Tiitta points out, Tope-

669 Lukkarinen 2004, 49.

670 'Denna tafla är Finland'. *Helsingfors Tidningar* 5.4.1854.

lius shares Alexander von Humboldt's approach, because geography and landscape painting were closely allied for both of them.[671] Von Wright's picture does not, however, represent any wild, untouched nature, but is rather a depiction of a cultural landscape, where the impact of humans can be seen, framed by a natural landscape. Hence, it can be seen as representing the relationship between humans and nature following Herder's ideas: here these two elements together produce the cultural landscape, which is something higher, combining the good, the pleasant and the beautiful.[672] This makes the landscape ideal for Topelius as well, because he thought that it was man's duty to cultivate the land given to him by God.[673] In all its 'Finnishness', or what is Finnish, von Wright's landscape represents a periphery though.[674] If we want to put von Wright's landscape into a wider context, it could be considered a representation of an 'average national landscape', a term coined by Häyrynen, by which he means a landscape that refers metaphorically, through a single place, to a larger group of Finnish landscapes consisting of forest, water and hills as the key elements – an idea also suggested by Topelius.[675] Thus, a similar view can be found anywhere in the inner parts of Finland. Von Wright painted his view from Haminalahti at a time when landscapes representing the country's interior were preferred to coastal views. It was only later, starting on a larger scale in the 1870s, that artists also began rendering seaside views. This is an interesting phenomenon, because Finland has a long coastline along the Baltic Sea. The desire to depict the interior has been explained in Finnish art-historical discourse in general as having been sparked off by the national poet Runeberg.[676] Nonetheless, von Wright's painting was very well-known and many Finnish artists copied it as part of their training, including Fanny Churberg.[677]

If we examine the impact Topelius had on the walking trips artists made in Finland, we can, indeed, detect several correlations between Topelius's writings and the subject-matter of the artworks that originated in Finland. As indicated earlier, his task was to educate and civilise the Finnish people. In a way we could say that Topelius describes verbally how nature was perceived at that time, and these artists gave his descriptions a visual interpretation, but most importantly they depicted their own experiences of nature.[678] From Topelius's writings we can conclude what artists were supposed to delineate, or to choose as subject-matter, to his mind at least. Topelius's descriptions about Finnish geology and the uplift theory,

671 Tiitta 1994, 307–308.

672 Trepl 2012, 153.

673 Tiitta 1994, 303; Lukkarinen 2004, 48.

674 Traditionally 'Finnishness' had been defined from the viewpoint of periphery, using its nature and people. Lassila 2000, 75.

675 Häyrynen 2005, 34.

676 Concerning Topelius and Runeberg's ideas of landscape, Lassila points out that Topelius wanted to see Finnish landscape as a cultural landscape, indicating signs of human impact, whereas Runeberg was more fascinated with the wild and untouched nature, devoid of human impact. Runeberg's approach was based on the Romantic-Platonic conception of eternal ideas present in nature, and his relationship with nature was ruled by an experience of sacredness. In comparison, Topelius's approach was rather practical, consisting of a unity of nature and culture in all its variety. For Topelius and Runeberg, see Lassila 2000, especially 28–54 and 64–78.

677 Konttinen 2012 [1994], 29.

678 For Topelius, nature was a state of mind and a feeling. Lassila describes how townsmen are encouraged to return to the countryside in the spirit of Rousseau in Topelius's poem *Folkvisan i konsertsalen* (*Folk song in a concert hall*, 1851). Lassila 2011, 103.

63 WERNER HOLMBERG
Mail Road in Finland, 1860
oil on canvas
40 x 58 cm
Finnish National Gallery /
Ateneum Art Museum
Photo: Finnish National Gallery /
Jukka Romu

even if distinctively poetic, explain what is characteristic of Finnish bedrock. To his mind, Finland does not need mountains as high as those in Norway or the Alps; the wide scenery with hilly landscape is sufficient. The hills are granite; in fact, the whole country is based on this grey stone, as is the firmness and seriousness typical of the Finnish people.[679] In addition, Topelius paid attention to the heaths which comprise the plains in Finland, though rather few in number. The heaths, which lie on granite bedrock, consist of crumbled silicates and silica, constituents of granite, and for Topelius they constitute not only the strongest, but also the wildest element in Finnish nature. It is here that the seriousness of the Finnish people found its expression.[680]

As to the flora and fauna, Topelius loved trees and liked to portray the Finnish forests, including the characteristics of different trees. The pine, the most common tree, stands for a true Finn, who is stubborn and unyield-

679 Tiitta 1994, 166, 175.

680 In his poetry, Topelius developed common images of Finland which consist of dark blue lakes in inner parts of the country, birds singing in the summer, heather growing on heaths, birches swaying in the summer breeze, and of eternal spruces and pines in wildernesses in winter. Tiitta 1994, 167. For Topelius's poetry, see Lassila 2011, 106.

ing. In comparison, the spruce, the spouse of the pine, is soft and yielding, whereas the birch embodies not only the seriousness and toughness of Nordic nature, but also a rare flexibility and perseverance. The significance of forests and trees, including their roots, becomes clear in the way that Topelius uses them as symbols for the Finnish people. The birch, as a symbol of home and love, also represented Swedish-speaking Finns, whereas the pine and the spruce symbolised the Finnish-speaking population.[681] Although in his poetry Topelius suggests culture and sophistication are in vain when compared with Finnish nature, he himself, nonetheless, was Swedish-speaking, as most of the cultural elite, including artists, were at the time. On the whole, the importance Topelius gave to the delineation of Finnish nature could be regarded as a feature of utilitarianism in his thinking.

HOLMBERG'S TRAVELS IN FINLAND

In Finnish art-historical writing, Holmberg has often been described as the master of Finnish pine forests. While travelling in Finland in the summers of 1857 and 1859 in the area of Pirkanmaa and Kuru near Tampere,[682] he composed several sketches and studies of pines, especially during his trip in 1857, paying attention to their characteristics in the same way he had studied, for instance, oak trees in Germany.[683] In order to convey the characteristics of a forest, in some cases he has examined just the outline of the forest by drawing a line of treetops. In these sketches, it is still possible to detect different species of trees. For example, the round form of the top of a pine differs clearly from the sharp form of a spruce; and in the case of broad-leaved trees, it is possible to detect a distinction between the lace-like shaped branches and sharp-edged leaves of a maple tree, and the softer contours of an oak.[684] Besides these pencil sketches, he rendered pines and spruces in some of his watercolours, focussing on their slender trunks rising from grey granite rock partly covered with grey lichen or greenish moss. In the depiction of pines, Holmberg has paid attention to the shift in colour on their trunks from grey to brown, which is characteristic of pines in Finland.[685] On the back of a study depicting a forest interior, he has drawn a another sketch of spruce branches, and noted typical features of a spruce forest, stating how taller and smaller trees were completely without needles, and there was grey moss on the stones and rock, and the misty grey colour continued on the ground; only in the air could one see more lively colours.[686] Another example of his interest in pines is represented in his later œuvre in the picture *A Road in Häme*, *A Hot Summer Day* (*Tie Hämeessä*, *Helteinen kesäpäivä*, 1860)[687], which takes us into a forest where a winding sandy road leads from a hilltop towards a lake. The road is lined with tall pines, some

681 Tiitta 1994, 187, 198.

682 For the route in 1857, see Reitala 1986, 81, and for the route in 1859, see Reitala 1986, 113.

683 In comparison, during the following trip in 1859, Holmberg focused mainly on peasant houses and people, composing small vignette-like pictures of different details of the houses and other buildings in the yard. See also Lukkarinen 2015, 60.

684 See Nos. A I 98:2, A I 470:103, A I 470:113, A I 470:105, A I 470:106, A I 470:184, FNG; see also Reitala 1986, 83.

685 See Nos. A I 470:103 and A I 470:106, FNG.

686 '*Egendomligt för furuskogen: större och mindre träd barrlösa nedantill, grå mossa på stenar och berg, deraf en dimmig grå ton utmed marken, först emot luften vidtaga lifligare färger.*' See No. A I 470:106, painted on 16 July 1857 in Kuru, FNG.

687 No. A II 1002, FNG.

64 WERNER HOLMBERG
A Road in Häme, A Hot Summer Day, 1860
oil on canvas, 88.5 x 103.5 cm
Finnish National Gallery /
Ateneum Art Museum
Photo: Finnish National Gallery / Yehia Eweis

smaller birches and spruces and a few large rocks. Farther along the road, it starts to bend to the left and then disappears, and we can detect some green bush-like trees to the right, which could be juniper. In the mid-foreground of the painting, we can see a carriage, obviously a stagecoach, pulled by two horses going down the hill. A man is sitting at the back of the carriage, the driver is in the front and some female travellers with parasols are in the carriage. The ground is very dry as the carriage is surrounded by a cloud of dust. This gives the impression of heat and refers to the name of the painting which was given by the artist himself. A distant view with fields opens up beyond the lake. In the fields, we can detect a tiny, black-and-white spot, which denotes a medieval stone church. This gives some hint of the actual location of the scene which is somewhere near Tampere, a city some 170 kilometres north of Helsinki in the province of Häme. The group travelling here are members of Holmberg's family, including his wife, the Norwegian-born artist Anna, (née Glad).[688]

Reitala explains how this painting records Holmberg's experiences from his last trip to Finland in 1859. Based on the same trip, Holmberg had painted an earlier version of the same theme in January 1860, *Mail Road in Finland* (*Postitie Suomessa*)[689]. In this painting, he obviously had been practising the composition for the later work, as it is smaller in size (40cm x 58cm). The basic composition in both pictures is the same, with the winding road leading from the foreground through the forest to the right. There are some differences, however. In the earlier version, the beholder is located farther away from the carriages on the road, making the horse carriage less clearly visible than in the later version. The direction of the carriage, moreover, is reversed: it is not going down the road, but coming up towards the observer. The road is not completely visible either, as the artist has left part of it hidden behind a group of trees in the middle ground. The view opening over the lake into the distance is missing, too, and there is a dense forest in its place. As a consequence, the picture lacks reference to any particular place. The only indication of the actual site is given by the milestone on the left side of the road. All in all, both the paintings convey the same impression of a hot summer's day in a Finnish forest. They depict travelling by carriage in Finland in the summertime. This is what Holmberg did in the summers of 1857 and 1859. The first time he travelled alone, on the second he was accompanied by his wife, Anna.[690] Certainly, he made a part of his journey by carriage on both trips, as in those days there were no railways in Finland. However, if we look at his sketches and studies from these trips, it is evident that he needed to go on foot, too, in order to get to the places he depicted. In his pursuit of the Finnish landscape, Holmberg travelled in the area surrounding Tampere, and some 100 kilometres farther northwest to Kuru and Virrat, as we shall see next.

688 Aspelin 1890, 164, 167; Reitala 1986, 123–124; for the popularity of road motifs in Holmberg's œuvre, see also Lukkarinen 2015.

689 No. A II 1706, FNG.

690 See also Lukkarinen 2017, 104.

MOTIFS FROM TORISEVA

In his forest interiors, as we have seen above, Holmberg focused on the depiction of trees, but besides that also on grey granite, which can be seen everywhere in Finland. Even in the centre of Helsinki grey stone projects here and there. It is no wonder that Topelius talked about the land of grey granite. In Pirkkala, just outside Tampere, Holmberg painted a watercolour study of a forest interior in which this grey stone covers most of the picture's surface.[691] Later, he painted two pictures of the same scene, varying the trees growing on the rock: in one painting the trees are mostly pines and spruces, whereas in the other one they are birches. Reitala suggests that the inspiration for these forest scenes might be August Cappelen's *Forest Interior,* from 1850.[692] Holmberg's interest in granite rock continues in one of his most popular paintings, *A Motif from Toriseva* (*Aihe Torisevalta*, 1859)[693], in which he has represented a scene from the southern end of the Lower Toriseva Lake. Although we, as viewers, are stationed by the lake, very close to the water's edge, we cannot see the entire lake, but only a very limited part of it. In front of us, a steep sunlit rock face, called Inkerinkallio, rises from the lake. The sunshine coming from the upper left corner, highlights the lower part of the rock face closest to the lake's surface. At this point, the rock radiates the light, creating a misty, almost dreamlike effect. There is no sign of wind as the lake's surface is calm, reflecting the rock face almost like a mirror. We cannot, however, see the rock completely, because our view is interrupted by a group of trees growing on the shore. There is a tall, slim birch on the left and two pine trees on its right – one gnarled and the other standing up straight. Behind the pines, we can detect the top of a spruce as well as some broad-leaved trees and bushes around them. In the foreground on the left, the artist has placed a greyish tree stump with twisting roots. When we move our gaze farther to the right, there is a variety of undergrowth and a group of stones, in front of which we can discern the delicate form of a plant. The stones seem to be covered with green moss, or grey lichen; and as a hint of human activity, there is a rowing boat on the shore. Only the bow of the boat is visible – the rest hidden behind a hump on top of which the birch is growing. We can, however, see the pivots for the oars on both sides of the boat, and there is a ring hanging from the pivot closest to us, creating the only clear shadow cast in the painting. Despite the steep rock face in the background, the landscape does not

691 Painted in Mattila on 6 Aug 1857, No. A I 470:109, FNG.

692 See Reitala 1986, 89–90.

693 No. G-2011-56, Signe and Ane Gyllenberg Foundation, Espoo.

65 WERNER HOLMBERG
A Motif from Toriseva, 1859
oil on canvas
61.5 x 56 cm
Signe and Ane Gyllenberg Foundation, Espoo
Photo: Matias Uuskylä

appear impenetrable, because a deeper sight, or an entrance into the landscape, is provided behind the group of trees on the right. We can assume that there is a passage or a path around the rock here, as we can see some light looming between the trees in the distance.

Toriseva is a ravine with three separate narrow lakes: Lower (Alainen), Middle (Keskinen) and Upper (Yläinen) Toriseva Lake. It is located in Virrat[694], a small town in the region of Pirkanmaa today.[695] It is famous for its narrow lakes surrounded by steep rocks, and it became a popular tourist destination in the nineteenth century. The Finnish national poet J. L. Runeberg praised Toriseva in his *Fänrik Ståls sägner (Tales of the Ensign Stål,* published in two parts, 1848 and 1860*)* as a sight that was as impressive as Lake Saimaa or the rapids at Imatra, both popular tourist resorts at the time.[696] Topelius mentions Toriseva in his *Finland framställdt i teckningar*, and talks about it first as not so 'prominent, but a rare speciality of nature'. He describes the location of the lake between the steep, upright rock face on one side and low-lying land on the other, and points out that, despite its depth, the lake is actually very narrow.[697] Six years later, however, he seems to have changed his mind, as he writes about Toriseva in his newspaper *Helsingfors Tidningar*, and praises the special quality of it as follows:

> *Although Toriseva is a lake, one has to admit that it does not resemble other lakes. So dark is this water that even the clouds in the sky waste their glow on its even, mirror-like surface; it is so quiet, heavy and dead that not a single breeze, which may find its way there over the high rock face, or from the midst of the forest, breaks its calm dark surface. It is nice to wander there along the shore of this dark lake for an hour, if only the rock keeps descending and ascending every now and then; if only the forest thins out here and there, but becomes thick again; but the lake remains unchanged, the same all the time, as narrow and hidden and dark and dead; one believes one sees the Styx and looks for an entrance to Orcus on the upright cliff.*[698]

According to Topelius, the task of a landscape artist was to frame his view to include just a few details, for instance, a close-up of a rock face with some pines, rather than to paint a wide panoramic view

694 Virdois in Swedish.

695 Virrat lies some 100 kilometres northwest of Tampere. The borders of different regions and the number of different provinces in Finland have been changed several times since then, so the current regions (*maakunta* in Finnish, *landskap* in Swedish) and provinces (*lääni* in Finnish; *län* in Swedish) are different from those in the nineteenth century. In the 1840s, Virrat belonged to the region of Satakunta, but to the province of Vaasa. Satakunta is nowadays one of the so-called historical regions, and the borders of the Vaasa province (Vasa län in Swedish) are different. For this, see historical maps on http://www.vanhakartta.fi/historialliset-kartat/pitaejaenkartat/@@mapview?handle=hdl_123456789_24059; Kartbilaga till *Finland framställdt i teckningar*, Zacharias Topelius Skrifter XII, Svenska litteratursällskapet i Finland.

696 More precisely, it is Runeberg's poem "July 5" in the *Fänrik Ståls sägner* (*Tales of the Ensign Stål*). For this, see also Reitala 1986, 116, 118.

697 […] *Bland sina hundrade sjöar har Wirdois en föga bemärkt, men sällsam naturegenhet, Toriseva sjö, som på ena sidan begränsad af en hög lodrät bergvägg, på den andra af lågländ mark, sträcker sig med ett litet afbrott omkring 3 verst i längd, med ett på sina ställen förvånade djup, under det att bredden aldrig öfverstiger 8 à 10 famnar* […]. Topelius 2011 [1845], 136.

698 *Även är Torisewa en sjö, så får man tillstå, att den föga liknar andra sjöar. Så swart är denna watten, att sjelfwa himlens skyar förgäves spilla sina rosor I dess glatta spegel; så stilla, tungt och dödt, att ingen fläkt, förirrad öfwer klippans höga mur och skogens stängsel, nånsin rör den mörka ytans lugn. Att wandra sakta der en timmas wäg wid sidan utaf denna swarta sjö, har sitt behag; blott klippan sänkes då och då och höjer sig igen; blott skogen glesnar här och der, men tätnar åter strax; men sjön är oföränderlig, densamma städse, lika small och gömd och mörk och död; man tror sig skåda Styx och letar i lodräta muren efter nedgången till Orkus. Helsingfors Tidningar* on 1 Feb 1851; see also on 22 Jan 1851, 8 Feb 1851 and 12 Feb 1851.

△

66 WERNER HOLMBERG
Sketch from Toriseva, dated 30 July 1859
No. A I 472:6/25, pencil on paper
Finnish National Gallery /
Ateneum Art Museum
Photo: Finnish National Gallery /
Tero Suvilammi

67 WERNER HOLMBERG
▽ *Sketch from Toriseva*, dated 20 July 1859
No. A I 472:6/27, pencil on paper
Finnish National Gallery /
Ateneum Art Museum
Photo: Finnish National Gallery /
Tero Suvilammi

of a lake.[699] Topelius admired Holmberg's earlier works, such as *Kyrö Rapids,*[700] but, as Holmberg's art evolved into a more realistic style, Topelius found his art somewhat strange. Interestingly, this was also the case with the *Motif from Toriseva*.[701] Allan Tiitta has interpreted that this change in Topelius's attitude towards Holmberg's new paintings was caused by their touch of realism, which did not coincide with Topelius's ideal of the Finnish landscape.[702] Later in his memorial speech in 1861, Topelius praised Holmberg as *the* painter of the Finnish forest, grieving his early death by stating that he had been a young genius. In this he took Holmberg's *Motif from Toriseva* as an example of his skills, and wrote how the artist was able to depict it objectively in a simple manner. For Topelius, however, Holmberg was a romantic, although he had spotted a new, dangerous manner in his latest artworks.[703]

Holmberg's picture, *A Motif from Toriseva,* is based on the sketches and studies made on a painting trip to Finland in the summer of 1859. He left Düsseldorf for Finland on 20 May, arriving in Turku at the beginning of June, and started his painting trip to Ruovesi and Virrat by crossing Lake Näsijärvi on 19 July. After the crossing, he continued on foot to Virrat, arriving the following day.[704] Holmberg drew his first sketch by the Lower Toriseva Lake on his first day there.[705] It is noteworthy that the finished picture follows the composition of this sketch to a great extent. It could even be compared to a *Komposition* produced by Schirmer and Lessing for their *Landschaftliche Verein*. It is easy to detect the slim birch on the right and the rowing boat behind it. The group of stones in the foreground and the group of trees behind can be seen, too, as well as the passage on the left. However, one dominating element is missing, since there is no sign of the gnarled pine tree which is seen in the middle of the finished picture. Neither is the passage – as a passage where one can go through – visible; instead, it can be perceived just as a deep hole in the rock face. In fact, Holmberg has squeezed the scene in a similar way to Frederic Church in his *The Heart of the Andes* to make place for all important elements in his artwork, because in real life the passage would be a little bit farther to the right. However, the place is topographically clearly recognisable, although the vegetation has naturally changed over time, but there are still slender pines growing on the shore of the lake.[706]

Holmberg drew his sketches with a pencil, but he also made studies in watercolour at Toriseva. The pencil sketches repeat the roughness

699 Tiitta 1994, 312.

700 *Helsingfors Tidningar* 12.4.1856; Reitala 1986, 148.

701 […] ***Mest främmande*** *är Torisewa äwen för mången som warit på stället. Orsaken är att bergväggens färg beror uppå solens ställning. Hr Holmberg har teckat den kl. 5 eller 6 på e.m., när dagern fallit från wester och då är allt fullkomligt natursannt*[…]. […] *Torisewa is* ***strangest*** *for those who have been there. The reason for this is the colour of the rock face which depends on the position of the sun. Mr Holmberg has drawn it at 5 or 6 pm. when the daylight has fallen from the west and everything is naturally true* […]. *Helsingfors Tidningar* 10.5.1860; Reitala 1986, 149; Tiitta 1994, 310.

702 In addition to Holmberg's *Motif from Toriseva*, Topelius writes here about his *Farmhouse in Kuru* (Talonpoikaistalo Kurussa, 1859, No. A I 94, FNG), and *Post Road in Finland* (see above). He praises the former, but he criticises the latter. *Helsingfors Tidningar* 10.5.1860; Tiitta 1994, 310.

703 Topelius 1989 [1861], 37, 44–45.

704 Aspelin 1890, 154–155.

705 Sketch No. A I 472:6/25, dated 20 July 1859.

706 Photographs taken from Toriseva on 12 July 2018; Compare with Lukkarinen 2008.

of the rock face more in detail, as for instance in the sketches dated 20 July and 21 July. The former represents the view as in the finished picture, whereas in the latter he has composed a wider view of the lake along Inkerinkallio to the left.[707] In comparison to the sketches, the studies composed in watercolour also hint at the different colour nuances of the rock face, trees or undergrowth, or they just stress the difference of light and shadow on the tree trunks.[708] Since Holmberg composed his finished pictures based on the sketches and studies he made from nature, the studies in watercolour helped him to recall the colours of different elements. However, they do not convey any meticulous details as such, except for the study made for the greyish tree stump with twisting roots and a birch trunk.[709]

As for the composition of Holmberg's finished picture and its authenticity, there are some interesting points made in the earlier research concerning the painting. Lukkarinen has pointed out that, for the gnarled pine in the middle of the picture, Holmberg used a sketch of a pine he had made on his previous painting trip to Finland in 1857. Thus, there is no sign of it in the sketches or studies made at Toriseva in 1859. Moreover, Lukkarinen claims that the pine does not fit in the picture as it looks rather short – actually as if it has been cut in the middle – and therefore it is closer to the ones growing on a rock in the archipelago. According to him, this kind of borrowing and combining of motifs from different sketches affect the beholder's looking experience, raising certain kind of expectations. When Aspelin was writing Holmberg's biography in the 1890s this feature in Holmberg's oeuvre in general was something that he found disturbing as well as restricting, because it did not follow his conceptions of realism or naturalism.[710] Aspelin particularly criticised the combination of different motifs from different countries which, to his mind, gave the artwork an overall impression of Idealism and, as a consequence, it did not represent any specific country.[711]

Keeping the above-mentioned in mind, I suggest, however, that Holmberg's way of combining different elements from various sketches does not, as such, militate against the principles of naturalism in Düsseldorf or its 'true image of nature'. Nor does it deviate from the common procedure of composing artworks using sketches and studies practised since Renaissance times. Holmberg's representation of Toriseva thus expresses the core idea of the naturalism of the time as it keeps faithfully to the particularities of the actual object – in this case the pine. Although the pine trunks are from another sketch from another place, it is not that far-fetched

707 Sketches Nos. AI 472:6/25 and A I 472:6/27, dated 21 July 1859, FNG.

708 Study No. A I 472:6/26, and sketch No. A I 472:8/33, dated Virdois 21 July 59, FNG.

709 See No. A I 470:154, dated 15 Aug 59, FNG.

710 Sketch A I 470:105, dated 15 July 1857, FNG; Lukkarinen 2008, 28; compare also with Lukkarinen 2017 where he locates the pine growing on a rock by the lake Näsijärvi.

711 Aspelin writes here actually about another painting by Holmberg, *Forest in Rainy Weather (Metsä sadeilmalla), 1859*, which belongs to the imperial art collection of the Presidential Palace in Helsinki. Aspelin 1890, 147–148; See also Relas 2013, 241.

68 WERNER HOLMBERG
Study of Birch Trunks (from Toriseva?), 1859
No. A I 470:155, watercolour
Finnish National Gallery / Ateneum Art Museum
Photo: Finnish National Gallery / Yehia Eweis

69 WERNER HOLMBERG
Study of a Tree Trunk and Roots, 1859
No. A I 470:154, watercolour
Finnish National Gallery / Ateneum Art Museum
Photo: Finnish National Gallery / Yehia Eweis

to include them here. Holmberg had actually made a sketch of the pine in Kuru, which is not so far from Virrat, only some 50 kilometres, and there are pines growing on the shore of the lake still today.[712]

Furthermore, Holmberg's way of working coincides with Humboldt's idea of presenting a total impression of nature, *Totaleindruck*, and thus it represents Humboldt's idea of *Naturgemälde,* using trees as a specimen of the flora. By adding the pine to his finished picture, Holmberg, in a way, widens our perspective of the flora in the area and creates the total impression as expressed by Humboldt.[713] This is something we can realise ourselves by entering the area at the end of the lake, which is a grove with a variety trees. There are, in fact, pines growing around the Lower Toriseva Lake, so they are not of foreign origin but rather endemic. The pine (*pinus sylvestris*) is the most common tree in Finland, and it grows in a variety of places. There is, nevertheless, something that might be at variance with the occurrence of such a tall pine on the same spot as in Holmberg's artwork, and this would be the lack of light. The location – so close to the rock face in the midst of a dense dark forest – might hinder the pine from growing there, since it requires a lot of light. But obviously this is not the case, since there are pines growing still today.[714]

In the case of Toriseva, we have to focus our attention on another key element in the picture besides the pine tree; that is, the sunlit rock face, Inkerinkallio, partly hidden behind the trees. This impressive rock, I believe, is the reason why Holmberg composed his picture. Thanks to the mighty rocks around the three lakes, Toriseva was regarded as a geological sight and was already attracting visitors in the nineteenth century. All of the lakes belong to the fault line of the bedrock which is some 20 kilometres long, starting from Toisvesi, one of the deepest lakes in Finland. The lakes were formed after an earthquake caused by the receding ice sheet some 10,000 years ago.[715] The deep blue colour of the water in the painting gives an impression of a deeper lake, but the Lower Toriseva Lake is only some 12 metres deep here. The other two lakes at Toriseva, however, are deeper.[716]

Aimo Reitala compares the impressiveness of Holmberg's painting with the artworks of the Norwegian artist, August Cappelen (1827–52).[717] He points out how Cappelen had used a similar passage in his *Forest Interior* (1850) to avoid creating the impression of a closed landscape. Reitala cites Cappelen as Holmberg's most important source of inspiration for forest interior themes.[718] As Reitala does not give any number or note

712 Today it is about 53km from the centre of Kuru to the Lower Toriseva Lake.

713 Holmberg has also painted some smaller plants in the foreground of the painting which strengthens the total impression of the landscape.

714 For this, see http://www.luontoportti.com/suomi/fi/puut/manty; and Kasviatlas on http://koivu.luomus.fi/kasviatlas/maps.php?taxon=40162.

715 Kallio 2004. http://www.bittikone.com/ohjeet/toriseva/toriseva.html.

716 Ibid.

717 For the composition of a rock wall by a lake, see No. NG.M.00289-017, NMO.

718 Reitala 1986, 118.

for the Cappelen's painting he is referring to, it is difficult to know exactly which painting he means. There are, however, several studies by Cappelen representing a forest interior in the collections of the Norwegian National Gallery.[719] All of these represent similar views of forest interiors, but they are still different in their composition as well as viewpoint. Besides, it is noteworthy that one of these studies, *Forest Study* (presumably 1851), might even represent a view from the Neandertal region (Fig. 57).[720]

In addition to Cappelen and his forest interiors, I would suggest that Holmberg's sources of inspiration for *Motif from Toriseva* were rather Lessing and Schirmer's landscapes from the Eifel and Harz regions, as discussed earlier in chapter four.[721] Although Holmberg himself was not very impressed by the Harz, where he travelled with the Norwegian painter, Sophus Jacobsen in 1855,[722] it does not exclude the possibility that he might have been inspired by Lessing's artworks, such as *The Thousand-Year-Old Oak* (*Die tausendjährige Eiche*, 1837), or *Bode Valley in the Harz* (*Das Bodetal im Harz*, 1871). As for Finnish mountain landscapes, I believe that the lack of really high-peaked mountains in Finland made the artists turn to other, similar, geological motifs bearing the closest resemblance to the mountains and the geological formations at Gerolstein in the Eifel, or the Harz.[723] Inspired directly or indirectly by the views from Gerolstein or Harz, as represented in the artworks of Lessing and Schirmer, for instance, Finnish artists working in Düsseldorf went in pursuit of similar geological motifs first in Germany, and later in Finland. In addition to Holmberg, we can detect similar features in Fanny Churberg's *Rapakivi Rocks* (*Rapakivikallioita*, 1871)[724] and Magnus von Wright's *Suopelto Mountain in Haminalahti (Suopeltovuori Haminalahdessa*, 1867)[725]. They also depicted the steep, upright rock faces with sharp edges and contrasts, such as Inkerinkallio at Toriseva, or Suopeltovuori in Haminalahti. In comparison, Hans Gude and his Norwegian colleagues did not have to use German mountain landscapes much, because they could depict their native Norwegian mountains which were, after all, a popular motif in Düsseldorf.

Holmberg's artwork also provides another tempting possibility, to compare Toriseva as a geological area with that of the Eifel region in Germany. As Toriseva consists of three lakes, which are rather close to each other in the ravine, they, in a way, resemble the crater lakes in the Eifel[726], although the actual shape of the lakes is different; that is to say, they are long and narrow at Toriseva, and round in the Eifel. Moreover, the lakes at Toriseva

719 For this, see *Forest Study* (presumably 1850), NG.M.00289-010, *Forest Study* (presumably 1851), NG.M.00289-001, *Forest Study* (presumably 1851), NG.M.00289-013, *Forest Study* (presumably 1851), NG.M.00289-009, *Forest Interior* (presumably 1851), NG.M.00289-004, NMO; see Fig. 58.

720 No. NG.M.00289-010, NMO. In Hanna Eggerath's revised edition of *Im Gesteins: das ursprüngliche Neandertal in Bildern des 19. Jahrhunderts* (2012), there is another *Forest Interior* by Cappelen. By taking a closer look at it, it seems that the painting in Eggerath is the finished picture, which is bigger in size (94cm x 76cm), and the one in National Gallery in Oslo (No. NG.M.00289-010) is a study for the finished picture. Eggerath 2012, 146, 148.

721 See, for instance, Lessing's *Bode Valley in the Harz*.

722 Holmberg's letters home to his sisters on 2 September 1855. *'Älskade Systrar*, […] *Det är kanhända litet vågadt af en konstnär att ej vara en obetingad romantiker; och ändå vågar jag medge at det romantiska Harzgebirge ej gjorde synnerligt intryck på mig.'* Aspelin notebook at SKS KIA; Aspelin 1890, 75.

723 Besides, Finnish artists did not travel to Lapland to depict its nature at this stage; see chapter three.

724 No. A V 4712, FNG.

725 In his earlier works in 1850s, Magnus von Wright painted views from the top of Suopeltovuori rock looking over Lake Kallavesi, but after his visit to Düsseldorf in 1858, he painted this picture where the rock is seen from below. Pennonen 2017a.

726 *Das Maar* in German.

were formed after earthquakes caused by a receding ice sheet, whereas in Eifel they are the result of volcanic activity. After having seen the Eifel region, not to mention Schirmer and Lessing's repertoire of mountain landscapes, it is very likely that Holmberg focused on similarly impressive scenery in Finland. This followed Topelius's ideology, too, since he acted as a spokesman for the native landscape. On his trip to Central Europe in 1856, when he visited Holmberg in Düsseldorf, Topelius praised the Finnish nature saying that he preferred it to that of Germany. He favoured the Finnish forest with pines and, although the Alps in Saxony could offer attractive views, they still lacked the Finnish granite, lakes and coniferous forests.[727]

Despite Topelius's contradictory and sometimes even disparaging opinions of Holmberg's *Motif from Toriseva*, other Finnish artists studying in Düsseldorf seem to have appreciated it, since there are at least two later copies of it: one is attributed to Fanny Churberg from 1870,[728] and the other to Emma Gyldén, from 1864.[729] It is very unlikely that Holmberg would have managed to make a copy himself,[730] since he painted the finished picture in the autumn of 1859 after spending the summer in Finland, and, according to both Aspelin and Reitala, there are two other paintings from the same period. The following year, when he was taken seriously ill, Holmberg painted, or at least started painting, fourteen other works before his death on 24 September. Later, at the end of the century, other Finnish artists, such as Albert Edelfelt (1854–1905),[731] were inspired by Toriseva, as well as the journalist and photographer, I. K. Inha. Inha preserved views from the lakes in his books, *Suomi kuvissa* (*Finland i bilder; La Finlande Picturesque*, 1895–1896) and *Kolme Torisevaa*, which was published in *Kansanvalistusseuran kalenteri* (1916). His pictures were disseminated widely in the newspapers and admired by the public, and he played an essential role as an intermediary between landscapes presented in the arts and landscapes in popular imagery.[732] Edelfelt actually created his picture of Toriseva from a photograph taken by Inha.[733]

THUNDER APPROACHING OVER THE SLASH-AND-BURN LANDSCAPE

Holmberg's *Toriseva* inspired Churberg, as we have seen before. In fact, for Churberg the depiction of Finnish landscapes became vitally important in every respect. In 1872, while still studying in Düsseldorf, Churberg painted

727 Tiitta 1994, 244.

728 Lindström 1938, 35.

729 No. 1864:029 in the Finnish Art Society's exhibition catalogue. This information was kindly provided by Jukka Ervamaa.

730 In the spring of 2014, a copy of Holmberg's *Motif from Toriseva* appeared in a private collection. After investigating the painting along with conservators in the National Gallery and Jukka Ervamaa, we assume that it could the copy by Emma Gyldén displayed at Finnish Art Society's Exhibition in 1864.

731 Edelfelt made a picture of Toriseva for Runeberg's *Fänrik Ståls sägner.* See No. A I 754:158, FNG.

732 Kati Lintonen has studied I. K. Inha's production from the point of view of a journalist, as well as a photographer. According to Lintonen, Inha's interest in Finnish landscapes was controlled by the ideas of the *sublime* and the *picturesque*; thus, he focused on photographing panoramic views from the top of the mountains in Lapland, or ravines surrounded by steep rock formations. Lintonen 2011, 61; see also Kansanvalistusseuran kalenteri 16, 1916; see also Häyrynen 2005, 74.

733 Lukkarinen 2004, 90.

70 FANNY CHURBERG
Burnt Clearing, Landscape from Uusimaa, 1872
oil on canvas
54 x 85.5 cm
Finnish National Gallery / Ateneum Art Museum
Photo: Finnish National Gallery / Yehia Eweis

a slash-and-burn landscape with a thunderstorm approaching. The fruit of this labour, *A Clearing, Uusimaa Landscape* (*Kaski, maisema Uudeltamaalta*, 1872)[734], represents a lakeside view on a late summer's day. The composition consists of two main areas, or layers: light, sunlit stones and a yellow rye field in the foreground, contrasted with a dark lake-side view and dark thunderclouds in the background. The foreground takes up about one-third of the surface, leaving two-thirds for the background. The yellow rye field together with the lake constitute a winding element, which starts from the foreground on the right, leading between the stones, and then continuing above a green meadow to the lake, where it finally disappears behind a large rock on the right.

734 No. A II 1435, FNG.

As beholders of the landscape, we are stationed in front of the rye field among the stones. Through the flanking coulisses, formed here by a group of birches growing between the stones on the left, and some birches and a pine tree on the right, our gaze first focuses on two buildings by the lake. From there our gaze proceeds along the lake's surface to the horizon. The horizon is placed about one-third from the bottom of the painting. Churberg has created an illusion of depth by using aerial perspective here together with the diminishing view towards the horizon. She has also spaced the stones and the birches so that their diminishing size with the distance strengthens the illusion of depth. Behind the buildings, the artist has painted a thin white line on the lake's surface, which could indicate a reflection of clouds from above, or some waves raised by the wind. This line, however, indicates the division between the sunlit area and the area shadowed by the thunder-clouds. As such, the composition of this work bears certain resemblances to Lessing's *Siege* (*Belagerung*, 1848), especially in the construction of the mood using clouds and the approaching thunderstorm. Moreover, in both artworks we can see rain approaching in the distance. Also the contrast between the dark bluish clouds and the sunlit yellow rye field in the middle creates a similar effect, and we are guided from the foreground into the looming distance with undulating scenery along the way in both of the paintings. It is clear that Churberg knew Lessing's painting, because it is one of Lessing's key works.

The whitewashed stones in the foreground are a striking feature as they also cover most of the surface. On the one hand, the shiny white colour of the stones is due to slash-and burn or clearing, just as the name of the painting indicates, and the luminous white strengthens the impression of bright sunlight. In fact, the white colour could be lime which has risen to the surface of the stones as a result of burning. Slash-and-burn was a popular method of fertilising land for cultivation in nineteenth-century Finland. Therefore, we can also say that this work represents a cultural landscape whereby the impact of human society on terrestrial nature is clearly evident. It is, however, difficult to say whether it represents Humboldt's idea about the balance between the two elements, as discussed in chapter three. Apart from the aspect of farming the land, on the other hand, these big stones, or boulders, can refer to an older geological phenomenon. Such a great number of big stones close to each other can refer to the receding

71 FANNY CHURBERG
Landscape from Uusimaa, 1872,
oil, 40 x 59 cm
Vaasa City Museums, Tikanojan taidekoti
Photo: Erkki Salminen

ice sheet at the end of the Ice Age, when the melting ice and water carried along large stones and boulders, the shapes of which became rounded off by the force of the ice sheet. This phenomenon of large groups of boulders, known as erratic boulders, which can be witnessed especially in southern parts of Finland, also caught Topelius's attention. His description of Finland's geological development, which he based on the biblical creation story, as well as the theories of the Swedish historian, Erik Gustaf Geijer (1783–1847) and the chemist, Jöns Jakob Berzelius (1779–1848), was divided into five main periods. The third period, during which man appeared on Earth, was ended abruptly by a huge stream, which carried big boulders along. This stream with the boulders, according to Topelius, had caused not only the grooves on the rocks, but also the hogbacks – all typical fea-

tures of the Finnish landscape. Topelius described the boulders in his story about the giant's kettle in his historical novel *Fältskärns berättelser* (*Tales of a Field Surgeon*, 1853–67).[735] Due to its popularity in the nineteenth century, we can well assume that Churberg knew Topelius's historical novel.

In addition to the whitewashed stones, which play the key role in Churberg's studies made for this painting, the finished picture is filled with the anticipation of rain and a thunderstorm with dark *cumulonimbus* clouds hovering over the lake. While painting the picture in Düsseldorf, Churberg wrote to her friend Hanna Colliander, describing how she could feel the warmth of a summer's day as if sitting there and hearing the sound of the wind in the birches.[736] This statement can be regarded as referring to a phenomenalistic approach, as Churberg derived her painting from an experience of nature, that is to say, from the studies from nature she had made earlier in Finland in the summer. As such, it refers again to Humboldt's idea of *Totaleindruck*. In her letter to a younger Finnish artist, Helga Söderström, who was planning to study in Düsseldorf, Churberg emphasised the importance of making studies from nature. She also stressed how important it was to be able to include at least one 'spark of nature' in a study. In order to achieve this, one should search for simple items with only a few colour contrasts and realise them broadly without going into details.[737] Thus, it is interesting to note how she constructed the finished painting, since the studies made for it all depict a sunny and very tranquil landscape from quite different points of view. Here it is noteworthy that Churberg clearly did not paint any watercolours, because there are no such works left; instead, she concentrated on drawing sketches and making oil studies.

One of these studies, housed at the Tikanojan Taidekoti museum in Vaasa,[738] is executed with very free brushstrokes from an angle to the left of the buildings by the lake. The overall impression of this study is rather flat, with no clear distinction between sunlit areas and shadows. The sky is mostly covered with light *stratus* clouds, leaving some patches of blue sky visible, but with no sign of an approaching thunderstorm. The view stretches over deep blue water and a group of islands to the horizon. The colour of the water, nonetheless, is closer to the colour of the sea than a lake. The overall colouring of the work, more precisely the rye field in the foreground as well as the leaves on the trees, denotes the end of the summer.

735 Topelius's lectures 257–259. Tiitta 1994, 138–139.

736 Lindström 1938, 39.

737 Fanny Churberg's letter to Helga Söderström on 27 May 1872. '[…] *och om jag får uttala ett råd, ville jag bedja Eder under sommaren icke låta en dag gå förbi, som Ni ej för- eller eftermiddag, använde till att göra studier efter naturen, utan räddhåga och utan återvändo. Det blir det första, som här efterfrågas – och utan studier skall Ni ej mycket kunna inhämta.* […] *Jag studerade naturen under fyra somrar utan att åstadkomma en enda studie, som hade innehållit en enda gnista natur – jag har det ej heller än – men jag vill fortsätta och söka* […] *Sök enkla saker, med endast få färgmotsättningar, och återgif dem bredt – utan att ingå i detaljer – men framför allt gör studier* […] ' '[…] *and if I can give you a piece of advice, I would like to ask you not to let a summer's day go by which you would not use, morning or afternoon, for making studies from nature, without fear and turning back. It will be the first thing asked here – and without studies you cannot obtain.* […] *I studied nature in four summers without producing a study that would have contained a sparkle of nature – I still haven't – but I keep trying* […] *Search for simple things, with only few colour contrasts, and represent them in a broad manner – without going into details – and make studies above all* […]'

738 *A Clearing, Landscape from Uusimaa*, 1872, No. II 71, 40 x 59 cm.

72 FANNY CHURBERG
Landscape from Uusimaa, 1872,
oil, 39 x 51.5 cm
Merita Art Foundation
Photo: Seppo Hilppo

73 FANNY CHURBERG
Landscape from Uusimaa, 1872
oil on canvas
33 x 51 cm
Serlachius Museums
Photo: Hannu Miettinen

The second study[739] also represents a view seen from the left, but this time closer to the beholder's position in the finished picture. Here Churberg has placed a group of whitewashed stones with some burnt tree trunks among them in the foreground. This study is more detailed than the others with indications of light and shadow, and the stones form the group on the left in the finished picture, but seen a bit farther to the right. The colouring in this study refers to late summer, too. In contrast, the third study[740] represents the same view, but this time seen from the right of the buildings. It is also painted with free brushstrokes, but the overall impression of the colouring is greenish, which suggests an earlier point in time of execution, in the summer. All of these studies and the finished painting, are dated 1872. With this in mind, it is interesting to note that, according to Aune Lindström, Churberg wrote to her friend Hanna Colliander in December 1871, describing her work on the painting. Presumably, she painted her studies from nature while visiting Finland in the summer, but executed the finished picture in the studio in Düsseldorf. This, however, raises the question of whether she had already painted the studies in the summer before, that is, in 1871 while in Finland. In the summer of 1871, Churberg stayed in Valkeala, in Southern Savonia,[741] but she travelled back to Düsseldorf in September. She spent the following summer again in Finland, but this time in Bosgård, near Porvoo.[742] The subject matter of Churberg's *Clearing* is not limited to phenomenalistic elements; it includes narrative elements, too, which here represent the ideals of the Finnish-minded Fennomans, as suggested by Konttinen.[743] If we examine the painting according to these ideals, Churberg's landscape represents a rural landscape with the imprints of a peasant's work. To be precise, there are stones whitewashed as a consequence of the slash-and-burn. The yellow rye field and the greyish barns in the background, moreover, point to human impact. The subject on the whole alludes to the use of the landscape imagery to illustrate clearance, and hence the civilisation of Finland following Topelius's ideals, and Churberg was a great admirer of Topelius.[744]

Some other works by Churberg include references to natural phenomena and geology, as well. For instance, in her *View from the Neighbourhood of Vyborg, or Thunderstorm Approaching* (*Maisema Viipurin tienoilta, lähestyvä ukonilma*, 1877), Churberg has placed the viewer of the landscape standing on a sandy road that leads down the hill in the foreground. From this standpoint, a wide panoramic view of a landscape

739 *A Clearing, Landscape from Uusimaa*, 1872, 39 x 51.5 cm, MAF.

740 No. 38, GSM.

741 Nowadays the area belongs to the Uusimaa Region.

742 Ahtola-Moorhouse 1988, 51.

743 Fennomans members aimed at improving the status of Finnish language and the construction of a national culture in the nineteenth and at the beginning of the twentieth century. Their ideology was based on the former class society and directed against urbanism, although most of them had an urban background. Their hero was a working peasant who feared God. Churberg shared their ideology, which she probably put more into practice in her activity at the Finnish Friends of Handicrafts, an association that she founded together with the architect Jac. Ahrenberg in 1879, to cherish and promote the tradition of Finnish textiles. Häyrynen 2005, 159; Konttinen 2012 [1994], 156–159.

744 This is a subject to which Riitta Konttinen has alluded in her biography of Fanny Churberg. See Konttinen 1994 and 2012.

77 FANNY CHURBERG
Landscape from the Surroundings of Viborg, Thunder Approaching, 1877
oil on canvas
70 x 98 cm
private collection
Photo: Matti Ruotsalainen

opens up, where patches of dark green forest alternate with light green and yellowish fields. In the fields, a light blue river winds its way through the landscape. At top of the hill, there are grey rocks, some stones and boulders on both sides of the road in the foreground. A few gnarled pines and birches grow in the crevices and among the stones. Dark *cumulonimbus* clouds, which are approaching from the right and forecasting rain, cover most of the sky at the top of the painting. On the left, there is still a patch of lighter clouds, indicating an earlier sunny spell. On the surface of the rocks on the left side of the road, there is an interesting detail in the form of clear grooves, or striations, which lead the eye towards the road. In the 1870s, Topelius was already aware of the fact that Finnish mountains, or rather hills, have an even surface instead of being rough, as if ground down forcefully by something. Consequently, he concluded that some substance, when passing over the hills, had carved grooves on their slopes. He also discovered that the direction of these grooves in Finland and Scandinavia is from the north-east to the south-west, whereas in the White Sea region the direction is reversed, going from the south-east to the north-west. In addition to Topelius, Nils Gustaf Nordenskiöld had studied these grooves along with giant's kettles, and discovered that a worn-out stone could be found at the bottom of the kettle. Following Nordenskiöld's ideas, Topelius believed that the grooves, as well as the giant's kettles, were caused by a sea stream. Later, N. G. Nordenskiöld's son, Adolf Erik Nordenskiöld, studied the same phenomena and explained that both the grooves and the giant's kettles were caused by stones in the ice sheet, the heavy weight of the ice sheet and the heat radiation from the sun. He based his hypothesis on the research he had undertaken in Greenland. Finally, in the 1890s, Topelius started to support the theory concerning the ice sheet.[745] Today we know that these grooves were caused by the thawing ice sheet in the aftermath of the Ice Age, and they show the direction in which way it receded.

CHURBERG'S STUDIES OF THE RAPAKIVI ROCKS

As we have seen before, Churberg also depicted several geological formations in Finland during her career. In 1871, she spent the summer in Valkeala,[746] a former municipality in Southern Savonia.[747] There she stayed at the home of her former colleague and friend, O. I. Colliander, making paint-

745 Tiitta 1994, 140, 148.

746 Lindström 1938, 36.

747 Nowadays Valkeala belongs to the city of Kouvola, and it lies some 175 kilometres east of Helsinki.

74 FANNY CHURBERG
Rapakivi Rocks, 1871
oil on canvas fixed on panel
29.5 x 34 cm
Finnish National Gallery /
Ateneum Art Museum
Photo: Finnish National Gallery /
Antti Kuivalainen

76 MAGNUS VON WRIGHT
Suopeltovuori in Haminalahti, 1867
oil on canvas
55 x 66 cm
Finnish National Gallery /
Ateneum Art Museum
Photo: Finnish National Gallery /
Jukka Romu

75 FANNY CHURBERG
Red Rough Granite Rocks in Southern Savo, 1874
oil on canvas
70 x 108 cm
Vaasa City Museums, Ostrobothnian Museum, Karl Hedman's collection
Photo: Erkki Salminen

ing trips in the surrounding area. As a result, there are several paintings in which she has depicted the same rapakivi[748] rocks from different viewpoints. In one of the studies, *Rapakivi Rocks in Southern Savo* (*Rapakivikallioita Etelä-Savossa*, 1871)[749], we are confronted with the upright cliff of a massive rock (Fig. 74), to some extent in the same manner as in Holmberg's *Motif from Toriseva*, or Magnus von Wright's *Suopeltovuori in Haminalahti* (Fig. 76). This time, however, there is nothing interrupting our sight of it. The uneven cliff face with its projections and clefts, which is typical of this rock and caused by weathering, covers most of the surface of the painting. There are trees of different sizes growing in the clefts, mostly birches and spruces. On top of the rock, there are even more and bigger trees, and behind them, we can see some patches of greyish sky. The bottom and the right side of the painting Churberg left unfinished and, instead, added some colour with wide, free brushstrokes.

Three years later, Churberg returned to the same subject in her finished picture *Red Rough Granite Rocks in Southern Savo* (*Rapakivikallioita Etelä-Savossa*, 1874).[750] This time the point of view is different; hence, we approach the rocks from the right, if compared to the study mentioned before. The finished picture reveals more about the landscape where these rapakivi rocks are situated. Now we can see a lake on the left, and the line of rapakivi rocks forming a cliff face continues along the lake's shore, giving the impression that the lake is surrounded by the rocks. There are also some big stones in front of the rock, obviously disintegrated from it by erosion. Furthermore, there is a narrow sandy road cutting a passage between the rocks on the right; on the road, Churberg has placed three people: a man coming down, and a boy and a woman going up. The sky is light blue, but it is partly cloudy, and a massive white *cumulus* cloud is rising just above the biggest rock face and the forest above of it (Fig. 75).[751]

The composition of this finished picture – regarding the viewpoint with the lake, the rocks and the road – follows almost exactly another study Churberg has made of it.[752] However, in this study there is no date, so it is not possible to say whether it was made in the same year as the first one (1871). The sky, though, is covered with white *stratus* clouds, but there is no sign of a puffy *cumulus* cloud, and a patch of blue sky can be seen just behind the top of the large rock in the middle of the picture. According to the information delivered with the second study, the rock should represent a place called Sarvikallio. This information, however, is not correct, as

748 Rapakivi is a type of granite that weathers easily.

749 No. A V 4712, FNG.

750 No. KH 1332, OMV.

751 Konttinen has compared this picture with Schirmer's painting depicting the Wetterhorn mountain, with its peak covered with snow. Konttinen suggests how the puffy *cumulus* cloud above the rapakivi rock and the forest In Churberg's composition refer to Schirmer's snowy peak of Wetterhorn. Konttinen 1994, 63.

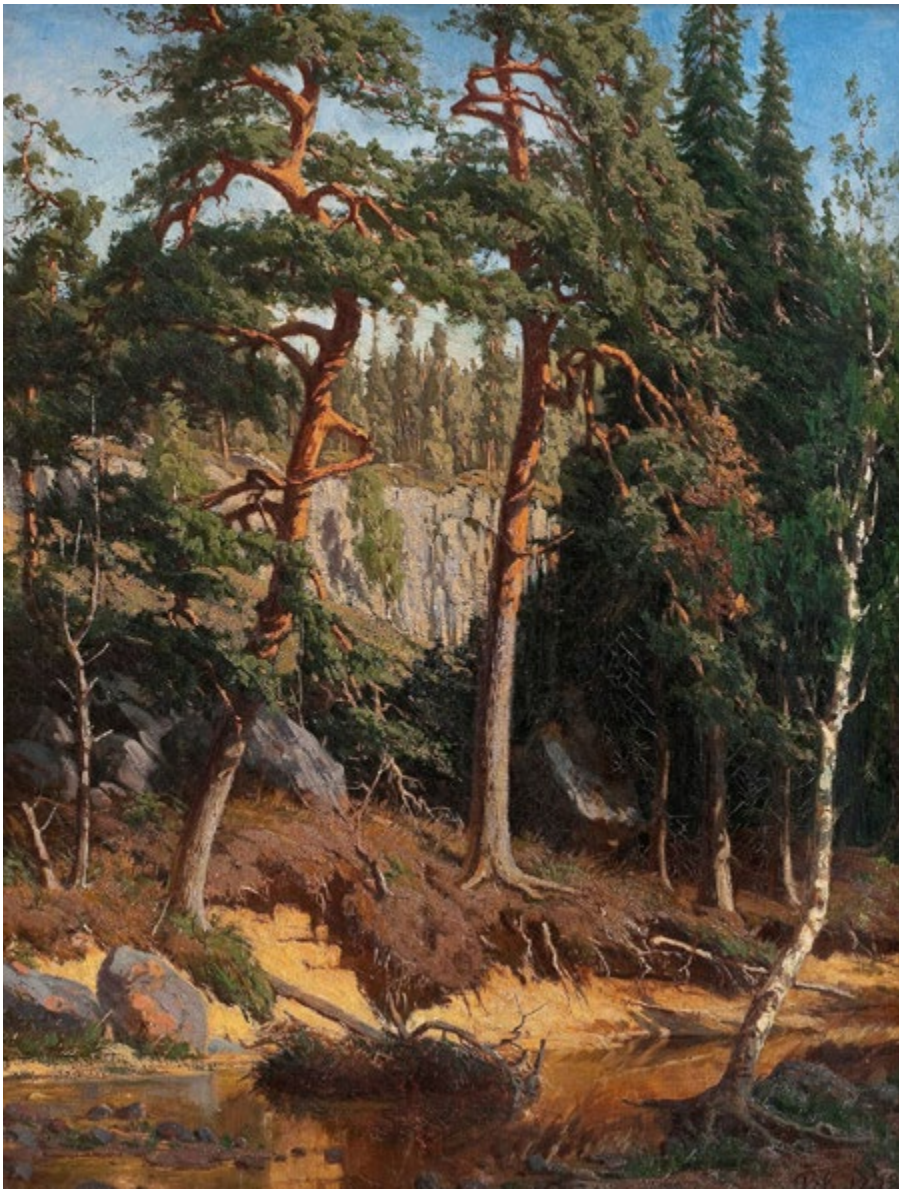
752 The study is also composed in oil, but it is smaller in size (ca. 37cm x 50cm) than the finished picture (72cm x 110cm). There is no year, only Churberg's signature 'FC' in the lower right-hand corner. The study belongs to a private collection.

Sarvikallio refers to a rock in Tuusula, which is some 30km north of Helsinki. But the place Churberg has depicted both in her studies and in the finished picture lies near Valkeala, where there is a national park called Repovesi, founded in 2003. According to archaeological research commissioned by the Finnish National Board of Forestry, Repovesi is an exceptionally wild and rugged area to be located in the southern part of Finland. Although there has been settlement here since prehistoric times and despite the forestry, the area has remained devoid of excessive human intervention until today.[753] In Repovesi, there are several massive rock cliffs which are called 'mountains' (*vuori* in Finnish) and which resemble the ones in Churberg's studies and finished picture for *Rapakivi Rocks* and *Red Rough Granite Rocks in Southern Savo* (*Rapakivikallioita Etelä-Savossa)*. One of these is Olhavanvuori, which is located by a small lake called Olhava. Both of Churberg's studies, as well as the finished painting, bear certain resemblances to Olhavanvuori: the uneven surface of the rock, its massive size, and how the cliff continues along the shore of the lake. When comparing these with photographs from Olhavanvuori, we can also recognise clear differences: there is no sandy road on the right side of the rock, only a path leading to the top of it, and the upright cliff of Olhavanvuori rises directly from water, whereas in Churberg's paintings there are big stones in front of it on the shore. Moreover, Olhavanvuori is situated in an area where there is granite, but no rapakivi. Rapakivi rocks can be found in the southern part of the national park and there, by Kuutinlahti bay, we can find a rock, the face of which has partly collapsed. This rock is smaller but its shape is similar to that in Churberg's artworks, and the collapsed parts indicate that the rock is rather porous thus suggesting rapakivi. These varying features of the rocks in Churberg's artworks, however, raise the question of artistic freedom, as with the pine in Holmberg's *Motif from Toriseva*. After all, we are discussing a work of art, not a scientific illustration. In the exhibition reviews of Churberg's artworks in Finland at the time, she was criticised for looking for daring, almost bizarre forms in nature.[754] This raises the other question of whether these bizarre forms could, for instance, allude to these massive rocks in Repovesi National Park.

The rocks in the southern part of Repovesi national park belong to an ancient volcanic area, which provides an interesting connection with the volcanic Eifel region in Germany. The name of Churberg's first study refers to this area in the south-eastern part of Finland, which is a geologically

753 For this, see Lavento & Lahelma 2007, 110.

754 Lindström 1938, 46



78 FANNY CHURBERG
In the Forest, 1878
oil on canvas
75 x 57 cm
Private collection
Photo: Matias Uusikylä

significant area and well known for its rapakivi rocks. These rocks constitute a special group of granite called Wiborgite[755], and their Finnish name 'rapakivi' refers to their property of crumbling. In his lectures on Finnish geography, Topelius also mentioned rapakivi, describing it as an 'intermediate form' of granite and porphyry, a kind of caricature of granite, which Finland should not be built on as it would not be steady enough. He was also well aware of its deposits in the south-western part of the country at the beginning of the 1870s,[756] the same time that Churberg painted her pictures. The rock formations in Churberg's paintings substantially resemble in appearance the ones in Gerolstein, which Lessing and Schirmer depicted in their artworks. In addition to Lessing's paintings, which for their part could have served as a source of inspiration for Churberg, there is evidence that she also travelled in the Eifel region in 1871, that is, in the same year that she painted the first study of the rapakivi rocks. This was discussed earlier in chapter four.

In Churberg's career, pictures of rapakivi rocks as a subject matter form a continuum. When she began painting with oil colour, her first motif was a large rock in a park. Obviously she chose this motif because Magnus von Wright had urged her to paint all the stones and tree stumps she saw.[757] Stones and tree stumps were popular motifs that artists depicted in their sketches and studies. Even Humboldt listed them as suitable subject matter for studies from nature, as stated earlier. Churberg employed these motifs several times in her later repertoire, too, but there is one particular large rock which seems to appear in several of her works – if not as the main subject of the painting, then somewhere in the background, as we shall see with the next painting.[758]

IN THE FOREST

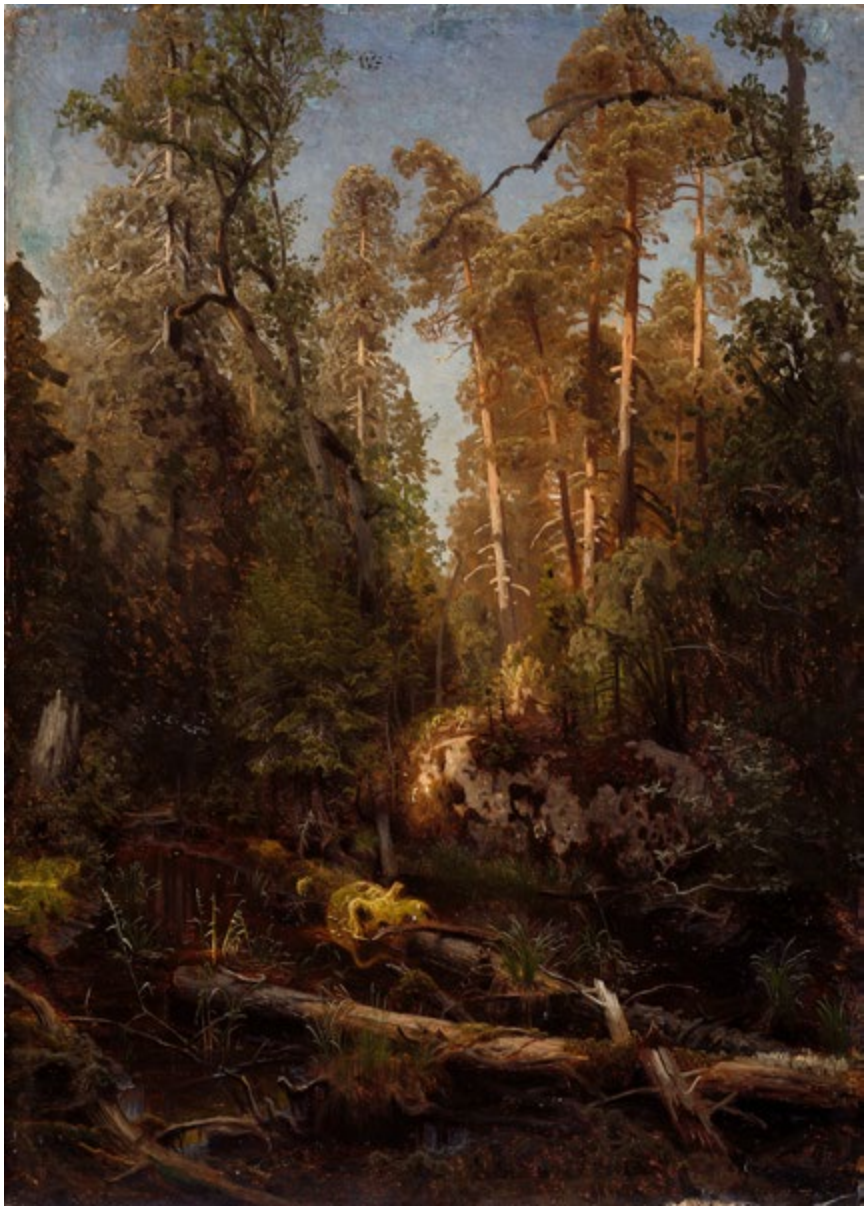
In 1878, Churberg painted a rather tall, vertical view, *In the Forest* (*Metsän sisusta*, 1878, 75cm x 57cm), depicting a forest interior on a sunny summer's day. In the foreground, closest to the viewer, a little stream runs from the lower left-hand corner to the right. There is also a slim, white-trunked birch, the roots of which spread out in different directions in the lower right-hand corner. The highlighted white trunk of the birch, spotted with dark grey and brown, rises along the edge of the picture towards the upper right-hand corner and stands out clearly against the dark background. On the other side of

755 Haapala & Rämö 2005, 542.

756 Tiitta 1994, 227.

757 '[…] *Sommaren står så ljus och varm för mig…om därföre att ja då får följa Wright ens råd att ej gå förbi en sten eller stubbe utan att avmåla dem, eller varföre?*' '[…] *Summer is so light and warm for me…therefore I may follow the piece of advice given by Wright and not pass a stone or a stump without painting them, right?*' Fanny Churberg's letter to Hanna Kihlman on 20 May 1866; Westermarck 1937, 24; Konttinen 2012 [1994], 30, 128–129.

758 A similar big rock as in Churberg's *Clearing* is also depicted in her landscape from Savonia. It was painted in 1873 and belongs to a private collection.



79 AUGUST CAPPELEN
Study for Forest Interior, presumably 1851
oil on paper fixed on cardboard
49 x 35 cm
The National Museum of Art,
Architecture and Design, Oslo
Photo: The National Museum of Art,
Architecture and Design

the stream, a slope of yellowish sandy soil rises towards the middle ground, concealing most of the view behind it. The slope is partly covered with brownish undergrowth, but a few large grey stones stand out due to the sunlight cast on them. The slope continues upwards where it changes colour to light brown with some nuances of green. The stream at the front mainly reflects the colours of the soil, but also of the smaller stones by the water and green plants growing in front of the stones. In addition, there are three slim pines with gnarled branches: one in the middle, another in the foreground on the left and a smaller one behind the big stones on the left. The colour of their trunks, changing from grey at the bottom to light reddish brown at the top, is emphasised by the sunlight. On the right-side of the picture, the view is interrupted by a dark and dense forest from which we can detect clearly only the tops of three tall dark green spruces. In the middle of the picture, just between the trunks of the two taller pines, our attention is caught by a large greyish rock face on top of which there is also a dense forest. In front of the rock face, Churberg has placed another slim birch. By taking a closer look, we can detect how the rock face continues from the middle to the edge of the picture on the left. The top part of the painting is covered by a light blue sky, which gives an intensive background to the greenness of the trees. Since the sky is not a clear intensive blue, as one would expect on a bright summer's day, there may be some light cloud in the form of *cirrostratus*. The yellowish sandy soil and the brownish undergrowth reveal the dryness of the land, and thus can denote a heath. Judging from the deep green colour of the leaves on the birches, it is summer. The sun shines from the right, and it is rather high in the sky, because the shadows cast on the ground are short and sharp; but, as it is summer time, it could be around three or four o'clock in the afternoon, according to the angle of the light cast on the pine trunks.

Along with horizontal panoramic views, such as the *Clearing* or *Rapakivi Rocks*, Churberg painted several close-up views of forest interiors. Moreover, it is clear that she painted several pictures based on the sketches and studies she had made in the area around Valkeala. There are not many sketches or studies left that can be compared with the finished paintings, and yet there are certain details in these artworks that indicate some connection with that area. When looking at Churberg's *In the Forest*, the sunlit rock face in the middle of the picture catches one's attention first. The effect is intensified by the 'peephole' created by the trunks of the pines and by the ascending line of the slope on the left, as well as by the rising line

80 VICTORIA ÅBERG
Landscape in Germany, 1860
oil on canvas
47 x 70.5 cm
Finnish National Gallery / Ateneum Art Museum
Photo: Finnish National Gallery /
Pirje Mykkänen

of the dark dense group of trees on the right. In this artwork, Churberg has used the coulisses again to guide the viewer. Essentially, the rock face resembles the one in Churberg's *Rapakivi Rocks* and therefore, it is tempting to assume that the view comes from the same area near Valkeala. However, as there are no sketches or correspondence relating to it, we can only assume. The composition, furthermore, is reminiscent of August Cappelen's *Study for Forest Interior* (*Skogstudie*, presumably 1851, Fig. 79*)*.[759] The high vertical format with trees set against the blue and the rock face all bear a resemblance to Cappelen's painting. The contrast of the green trees set against the blue sky also reminds us of the tradition of depicting trees in Düsseldorf, as described earlier in chapter four.

In comparison to Churberg's other paintings from the area around Valkeala, *In the Forest* can also be connected to the tradition in Düsseldorf of depicting sandy soil. Both the yellowish soil and visible tree roots protruding out of the ground were a popular theme there, and several artists depicted these details in the forest of Grafenberg, for instance.[760] Holmberg made several sketches and studies of sandy soil, first in Grafenberg and after then in Hilden, which today lies in the southern part of Düsseldorf.[761] Later, he depicted similar details in the area of Kuru[762] and his Finnish travel companion, Anders Ekman, also seems to have focused on the same details and subjects.[763] Furthermore, the contrast of the reddish soil with the greenery of the plants creates an interesting contrast in Holmberg's pictures from Grafenberg and Hilden, and he depicted a similar phenomenon in Odental in 1856 too. Later, in 1860, Victoria Åberg focussed on the same phenomenon in her *German Landscape* (*Saksalainen maisema*, 1860)[764] which, according to the signature in the lower right-hand corner, she had painted in Düsseldorf. Åberg's artwork represents a sandy road which leads through a forest down to a river or a lake. In the foreground, Åberg has painted tall pines on both sides of the road. Further down the road, there are broad-leaved trees, which are more difficult to identify because Åberg has delineated their leaves with less meticulous brushstrokes. In the mid-foreground, we can see a woman walking along the road with a little girl. She is carrying a big bundle of branches on her back, for burning. In the mid-background we can see a patch of water, probably the Rhine or the Düssel, some forest on the other shore and some blueish sky. What makes this picture interesting for this study is the side to the left of the road. There, Åberg

759 See No. NG.M.00289-014, NMO.

760 See, for example von Guérard's *Grafenberg* (1841), Private Collection, Coates, England; Lessing's *Harz Landscape near Regenstein* (*Harzlandschaft bei* Regenstein, 1853), SMKP.

761 Nos. A I 472:1/73, A I 470:31, A I 470:14 and A I 470:15, FNG. The first two are from Hilden, and the last two very likely from Grafenberg. See also A I 470:35, A I 471:13, A I 471:19, A I 471:6, A I 470:37, FNG.

762 Landscape from Kuru, No. GKM 1343.

763 Nos. A II 985:172 and A II 985:169, FNG. The former is from Grafenberg and the latter from Gesteins.

764 No. A I 69, FNG.

has rendered a sandy slope about two metres high if compared to the height of the woman on the road. The structure and the yellowish colour of the slope suggest a heath-like ground. The pines on the left, the roots of which we can see protruding through the soil, give the same impression. The light, which falls from the right, highlights the upper parts of the pines, some parts of the road and the sandy slope on the left. The shadows in the foreground and the long shadow cast by the pine on the right indicate it is late afternoon.

If we examine the way in which Churberg has depicted trees, it shows how she often paid attention to the roots. For instance, in her *Pine on the Shore* (*Mänty rannalla*, 1878)[765], she has placed the tree on the sandy bank of a lake. Most of the sandy soil around the tree's roots has been washed into the lake through erosion. As a consequence, the roots on the right form a network against the light blue surface of the lake, whereas the main root on the left remains mostly invisible, because it thrusts into the ground holding the tree up. In her painting, *In the Forest* (Fig. 78), the roots of the birch on the right are visible on the ground, but the tree seems to be standing firmly. In comparison, the soil around the two pines in the foreground seems to keep crumbling through erosion, revealing the roots of the tree in the middle especially. Hence, one longer root of this pine reaches out to the right, but some shorter roots just 'hang in the air' in front of it in a similar way to those in *Pine on the Shore*. One long, greyish-brown root of the pine on the left seems to reach out towards the water by the stream. Pines are known to have long main roots growing directly into the ground, which helps them to remain standing upright in a storm more easily than other trees. In contrast, the roots of spruces spread out near the earth's surface so they are more prone to fall over if forced by stormy winds. As evidence of this, Churberg has depicted the mighty trunks and roots of spruces which spread out on the ground in an earlier close-up study of the forest interior (1872).[766] Moreover, there is an undated pencil sketch delineating a tree which is growing askew on a tuft by a lake. The soil around the roots has been washed away, leaving them exposed. Since we cannot see the leaves of the tree, it is not possible to identify the species. Here, Churberg has focused on the tuft with the tree roots, placing them in foreground, with the background less meticulously drawn.[767] All in all, due to the frequent occurrence of the subject in Churberg's output, this was obviously a subject that inspired her.

765 Inv. No. G-2011-56, Signe and Ane Gyllenberg Foundation, Espoo.

766 No. A III 2343, FNG.

767 In this sketch, Churberg has marked some other details, such as grass (gräs) and green water (grönt vatten). No. A IV 2885, FNG.

Regarding the use of colours, Churberg's style is said to have changed after her stay in Paris in 1875–76, where she studied under the Swedish artist, Wilhelm von Gegerfelt (1844–1920).[768] As a result of this, Churberg started to paint with brighter colours and freer brushstrokes. The change in her style, however, not only reflects the impact of von Gegerfelt, but also that of Gustave Courbet (1819–77), Corot and Charles-François Daubigny (1817–78), as stated by Konttinen.[769] It is noteworthy that there had been a change in Düsseldorf, too, when the Baltic artist Eugen Dücker was nominated as Professor of Landscape Painting at the *Kunstakademie* in 1872. In effect, Dücker has been credited with introducing a new approach to landscape that was devoid of idealism, because he had not studied under Schirmer.[770] There are several artworks in Churberg's later œuvre in particular, which bear a close resemblance to Dücker's way of depicting atmospheric phenomena on a sunny day. In these pictures, we can mostly see a serene light blue sky with some clouds. As for the composition, these artworks also seem to follow Dücker's composition in terms of the low horizon line, the so-called Dücker-line.[771] The change in Churberg's brushwork could also have been due to her use of flat brushes. In fact, some of her studies have been over-interpreted as presenting some sort of early expressionism, which is not the case, however. Since Churberg painted several winter landscapes at the end of the 1870s, I believe that while working outdoors in the winter, she had to paint her studies very quickly. There are three in the Finnish National Gallery which indicate this distinctly.[772] They are all small in size and accomplished with free brushstrokes. These studies were very likely made outdoors to catch the right atmosphere and colours. If we compare these studies with her finished pictures of the same time, the finished pieces are more carefully worked.

When considering what exists today of Churberg's œuvre overall, it is interesting to note that there are no watercolours, only drawings and oil paintings. Obviously, she did not paint with watercolours, because it seems very unlikely that they would have all disappeared.[773] This is in contrast to Holmberg, or the von Wright brothers, all of whom painted a considerable number of watercolours. As such, this phenomenon reveals a change in working methods, and it may simply result from the development of oil colour. In Churberg's time in the 1870s, there was a wide range of oil colours available in tin tubes. Consequently, many artists preferred using oil colours when working outdoors and painting from nature. On the

768 Lindström 1936, 72; Konttinen 2012 [1994], 94, 103–105.

769 Konttinen 2012 [1994], 92.

770 Dücker had studied in St. Petersburg first and had settled down in Düsseldorf in 1864, after which he had travelled frequently in Holland, Belgium, France, Italy and Switzerland. Roth 2010, 251–252.

771 Roth 2011, 252; See, for example, Nos. A III 2346, A III 2361, A II 965, FNG.

772 See Nos. A III 2359, A III 2367, A III 2358, FNG.

773 This is also the case with Hjalmar Munsterhjelm.

one hand, painting with oil colours required a different technique; on the other hand, they offered qualities which could not be achieved with watercolours, such as stronger nuances, or the possibility of painting several layers on top of each other.

At the beginning of my research, my intention was to include several artworks by Victoria Åberg in the research material, but somehow they did not fit the case as clearly as Holmberg and Churberg's works. Åberg's landscapes from the period during which she studied in Düsseldorf indicate the teachings of Gude and the spirit of Düsseldorf naturalism; hence they bear a certain resemblance to Holmberg's art. Her works from the period thereafter are quite different and rather seem to fall into the domain of earlier nineteenth-century landscape painting in Dresden – at least that seems to be the case with her paintings of ruins, or even those depicting unusual atmospheric and geological features from Italy in the 1870s and 80s. As such, they include motifs that were popular in Romanticism in Dresden.[774] Further, the differences between Holmberg and Churberg's artworks, as described in this chapter, indicate the change that took place both in the approach to landscape and in the technique of painting between 1850 and 1880. In Holmberg's artworks we can see carefully depicted details in the foreground which the artist had examined in a number of sketches and studies made for the finished picture, whereas Churberg abandoned the minute depiction of details altogether, concentrating on the painterly qualities with free brushstrokes. This quality, especially in her later œuvre, has been attributed to her visit to Paris in the mid-1870s. However, this change might equally have been caused, for example, by the increasing use of photography which meant that it was no longer necessary to pay that much attention to the depiction of details in landscapes. Instead, motifs were rendered with freer brushstrokes and thicker layers of colour. Also the range of colours became lighter in tone. Generally speaking, this was a common feature of landscape painting in Düsseldorf in the 1870s.

As for the subjects of Düsseldorf landscape painting in general, we can note that many of the places that artists depicted were at the time, and are still today, popular tourist attractions, and not only in Germany, but also in Finland and Norway. Owing to the popularity of these places and their special qualities, many of them are now national parks that are protected, such as Siebengebirge or Neandertal in Germany. This feature,

774 In 1876, Åberg wrote to B. O. Schauman in a letter, describing her earlier career, that in Dresden she had a teacher whose ideas about landscape painting were quite different from those she was used to in Düsseldorf. That is why she did not stay in Dresden for long, but moved to Weimar when Stanislaus von Kalckreuth (1821–94), Director of the Art Academy in Weimar, invited her to study there. '*Vid denna tid hade jag lyckan göra grefve St. Kalckreuth's, då Direktör för konstskolan i Weimar, bekantskap.* […] *Egentliga anledningen till min flyttning till Weimar war den, att jag ej kunde beqväma mig till att i Dresden engagera mig en lärare vars uppfattningen såväl som prestationerna af Dresdner skolan syntes mig alltför olika det jag var van att se i Düsseldorf.*' Victoria Åberg's letter to B. O. Schauman on 25 May 1876, KA, FNG.

moreover, reveals the special character and meaning of these places. As we have seen already with the illustrated travel accounts, artists did not choose these places as motifs randomly, but because they appealed to their sense of the *picturesque* or *sublime* but often also because of their scientific qualities. Maunu Häyrynen combines the emergence of Finnish 'national landscapes' and their relation to Finnish national identity with the general nation-building of the nineteenth century. Throughout the whole century, landscapes were used as a part of the nation-building process, and their task was to illustrate an abstract nation state by giving it a certain location in history, and also to make the nation state appear like nature.[775] This was often the case with Topelius, too. There are several types of national landscapes and they can represent a geological sight, a certain region, or refer to literature. Although people have very different backgrounds, they can still identify with these national landscapes, making the landscapes almost axiomatic.[776] If we look at the Finnish landscapes that Holmberg and Churberg depicted, many of them could be seen as national landscapes. Besides, Kyröskoski (Kyrö Rapids) and Toriseva were already tourist attractions in Holmberg's time. Similarly Repovesi, where Churberg used to paint, was made a national park.

THE STUDIO AS A METAPHOR FOR LABORATORY

> *'Painting is science and should be pursued as an inquiry into the laws of nature. Why, then, may [might] not landscape painting be considered as a branch of natural philosophy, of which pictures are but experiments?' -John Constable-* [777]

As we have seen earlier in this chapter and in chapter four, working outdoors was an essential part of artists' work in Düsseldorf. When painting real landscapes outside their studios in the nineteenth century, the artists freed themselves from the studio and its conventions. As a consequence, the world was posited as an alternative to the studio, and the artists went out to make empirical studies, but came inside to compose their finished works. The American scholar Svetlana Alpers has explored whether the artist's studio could be regarded as a laboratory, and this idea was sparked off by the relationship between the practice of art and the practice of science in the seventeenth century.[778] However, Alpers concentrates mostly on

775 In Finland, a special concept – a so-called 'national landscape'– was launched in the 1990s, and the Ministry of the Environment listed 27 different landscapes under this heading. In the report of the landscape committee, these landscapes were described as 'unique' or 'representative'. The concept refers not only to natural and cultural landscapes, but also to urban landscapes, such as the Senate square in Helsinki. In addition, the concept is not limited to the listed landscapes only, but can be applied to other landscapes in a symbolical meaning. Therefore, a representation of a landscape can be referred to as a national landscape, such as Eero Järnefelt's *Autumn Landscape from Lake Pielinen* (*Syysmaisema Pielisjärveltä*, 1900). Häyrynen 2005, 13, 17–18.

776 Häyrynen 2005, 27.

777 Gombrich 1960, 29.

778 Alpers 1998, 403.

what happens in the studio with still-life and indoor paintings or portraits, but, in terms of landscapes, she notes that if one treats landscape in a studio in the same way as a still life, the nature of the painting is changed, as a studio representation is construed differently. Here she uses Cézanne as an example.[779] Similarly, the idea of certain parallels between artists' work in the studio, while composing landscapes, and scientific work in a laboratory emerged during this research.

In his statement above, John Constable compares landscape painting with natural philosophy, which was regarded as the science of his time. What Constable called 'natural philosophy' here would be called 'physics' today, as noted by Ernst Gombrich.[780] Moreover, Constable regards pictures as experiments. When Constable made this statement, art and science were not yet separated. It is well known that Constable was interested in atmospheric phenomena and the use of light, and therefore he made a great number of studies of clouds and the sky in the open air. According to his statement above, Constable regarded his pictures as experiments, and we can assume that his method of working was based on empirical observation to a certain extent; he carefully noted the weather conditions in the sketches and studies he made outdoors. As many scholars have stated, Constable also knew Luke Howard's taxonomy of clouds. On account of Constable's statement and what has been discussed earlier in chapter four, the working method artists used in Düsseldorf raises the question of the meaning of the work accomplished in the studio after the painting trips. There they started experimenting with the composition using the sketches and studies, in other words the fragments of nature and landscape they had recorded outdoors. The goal of their experiments was the finished picture consisting of different elements they had collected from nature. Their method, in principle, bears some resemblances to that of naturalists, such as Humboldt, researching nature for scientific purposes.

If we consider all of the artists under survey in this study, Carl Gustav Carus and the von Wright brothers could be regarded as exceptions here, because Carus himself was a scientist, and the von Wright brothers worked directly with several scientists both in Sweden and Finland.[781] In the case of the von Wright brothers, we know that they used real models of animals and insects for their scientific illustrations; they shot birds, caught fish and other marine animals to study and record the details as meticulously as possible. They also stuffed birds and used scientific col-

779 Alpers 1998, 413–414.

780 For Constable and science, see Gombrich 1960, 29–34.

781 For Magnus, Wilhelm and Ferdinand von Wright's work as researchers and scientific illustrators, see Leikola, Lokki & Stjernberg 2017, 110–119; for their lithographic works, see Anttonen 2017, 82–85.

lections of butterflies and other insects as models for their illustrations.[782] Wilhelm von Wright had an aquarium where he kept live fish and marine animals in order to maintain, for example, the correct colours of their eyes. For the same reason, the brothers usually painted the eyes, the beak and the feet of the birds with watercolour and gouache, because the colour of these body parts would start to change more quickly once they died. Before drawing on the lithographic stone, the brothers painted the originals in watercolour or gouache, and after that they coloured most of their lithographic works by hand in order to achieve the best possible result.[783] All of this work was necessary before the invention of photography, but it was still needed even in the 1850s as photography was at that time still a laborious means of recording and documenting objects.

Alpers's conclusion is that experimenting and painting can be compared as conventional crafts in theory, but the studio does not fit the designation as a laboratory, because there are several factors which mark the two apart from each other. These differences deal with questions such as whether the work is carried out by an individual or a group, or if it is a private or a public workplace. In the case of a studio, the artist's visual and phenomenological experience – not only observation – is essential, whereas the impact of the interference of the human observer was not recognised in the laboratory until modern times. In addition to the reasons Alpers gave for not equating a studio with a laboratory, it is notable that, while experimenting in the studio, artists did not carry out any tests that produced results which were accurate or repeatable. However, Alpers states, that '[…] what the painter makes of the world thus experienced is central to the studio as an experimental site.'[784] Instead of comparing a studio with a laboratory, one should concentrate on examining a painting as an investigation; one example would have been how artists conducted experiments with light.[785] Like Alpers, I would agree that artists' work in the studio cannot be compared directly with a scientist's work in the studio, despite their similarities. And yet, there were similarities in both fields, especially in the nineteenth century, which is what provoked the comparison in the first place.

782 For Magnus von Wright's work as a bird taxidermist, see Stjernberg 2017, 121–125.

783 Anttonen 2017, 84–85.

784 Alpers 1998, 403–404.

785 Alpers 1998, 407–408.

CONCLUSIONS

In my investigation, I have examined Düsseldorf landscape painting in the socio-historical context of the nineteenth century and, in particular, in the context of the natural sciences and their development. In terms of landscapes, I have studied a great number of sketches, studies and finished pictures made mainly by Finnish, German and Norwegian artists. I started by examining different elements which constitute the landscapes under survey here, and realised that it was not only work in the studio that was important, but also the work that took place outdoors in nature, thus increasing the value of sketches and studies in the light of this investigation. Consequently, it was essential to research and define their meaning in relation to the finished pictures. The sketches and studies often manifest artists' main focus in nature, i.e. what they appreciated there and what fascinated them. When researching the artworks, I noticed that some elements which appeared in the sketches and studies had caught artists' attention more frequently. This raised the question of why artists had repeatedly studied clouds and atmospheric phenomena, trees, rocks, stones and boulders. It is to be noted, however, that in order to get a broader picture of the whole, I have also examined several artworks from the same period by North American, Danish, Swedish and some Russian artists, who all studied in Düsseldorf, although their artworks are not directly included in this study, with the exception of the few Swedish and Danish artists in the introduction, as well as the American painters and the Austrian artist Eugène von Guérard in chapter four. Furthermore, the development of open-air painting in Britain and in France has enlightened me on this matter, although I have not referred to these directly. On the whole, it was essential to focus on Finnish and Norwegian artists due to the similarities of their background and their home country.

When researching open-air painting, the travels that artists had made gained more importance. During the research process, the exploration of the idea of discovery in connection with artists' travels led me to follow the footsteps of Alexander von Humboldt. His work as a natural-

ist, making one of his voyages of discovery to South and Central America, helped to connect landscape painting with the development of different fields of the natural sciences, starting at the end of the eighteenth century and expanding all the way through the following century. In particular, my attention was drawn to the field work that Humboldt carried out with Aimé Bonpland in the tropics. The pictures of their laboratory, and the copper plates depicting different natural phenomena and hence illustrating their research work, made me realise the affinity between their work and the work of artists painting outdoors from nature. The artistic process of composing a landscape, in effect, recalls the work of a naturalist, as described by Humboldt. Here it was essential to investigate different elements separately first, by drawing and painting sketches and studies from nature. After that the work continued in the studio by composing a *Naturgemälde*, using these elements. Finally, it would express the total impression, *Totaleindruck*, of that particular landscape, including all the characteristics. In this picture, vegetation and geological phenomena would describe the topography of the landscape, and the atmospheric phenomena, consisting of clouds and sky, would complete it, creating a certain kind of mood. Hence, this *Naturgemälde* would articulate not only the artist's idea, but also his or her experience of the landscape. We should not forget, however, that the introduction of oil colours in tubes and a portable painter's box contributed to the development of open-air painting, too, as I have stated in chapter four.

Humboldt's activity coincided with the remarkable change from a single domain of natural history into different fields of the natural sciences, and I suggest that this change is reflected not only in the subjects of landscape paintings; it also brings up certain elements in the landscapes such as clouds and atmospheric phenomena, trees, rocks, stones and boulders. Moreover, it was the popularity of Humboldt's writings – *Cosmos* in particular – but also his lectures, spreading his ideas among common people, including artists presumably, that demonstrated how well known he was at that time. Partly for this reason, artists depicted the Eifel's impressive Dolomite mountains, or old gnarled oaks in Sollingen while in Germany, whereas in Finland their interest was focused on local elements, such as rapakivi rocks or pine forests. In the case of Finnish landscapes, artists' attention was also directed towards certain elements and features by the work and writings of Zacharias Topelius.

When examining the temporal frame of this research as a whole, there are two milestones that seem to emerge throughout this study. Several important events appear to have taken place or to have originated in the 1830s. To start with, Goethe, the greatest German literary figure of the time, died in 1832. In the field of the sciences, the change of paradigm caused the abandonment of the Romantic science, *Naturphilosophie*, and the position of idealism weakened. Instead of metaphysics, more and more attention was paid to the empirical observation of phenomena when gaining information. Auguste Comte introduced positivism in France, which strengthened the position of empirical observation. In geology, Charles Lyell published his *Principles of Geology*, and Vulcanism started to gain more ground, leading to the expansion of the geological time of Earth. Along with these changes, a more realistic approach in the arts, focusing on the observable, began to emerge, which led artists to turn away from the transcendental dimension. Thereby the earlier formula of the *sublime*, the *picturesque* and the *beautiful* started to give way, also liberating artistic expression towards a more realistic approach. As a consequence, artists' representations of landscapes began to embrace to a greater degree their experience and knowledge of the particular place that they had depicted. Fidelity to nature and its details came to form the primary concern, which is also denoted by the number of sketches and studies composed from nature. Another turning point in this century seems to be the year 1859, foreshadowing the developments in the 1860s and later. In that year, the Director of the *Kunstakademie,* Wilhelm von Schadow, retired, Alexander von Humboldt and Carl Ritter died, and Charles Darwin also published his *Origins of the Species*, after which there was no turning back. In 1860, Holmberg passed away without seeing how the realistic dimension in the arts strengthened its grip. Two years later Hans Gude left Düsseldorf for Wales, but returned to Karlsruhe in 1864. The reason for him leaving was the disputes with the leading forces of the *Kunstakademie*. They wanted him to hold on to the earlier tradition of landscape painting, but he refused. Consequently, Finnish artists' interest began shifting from Düsseldorf to Karlsruhe, and from there farther off to Paris.

In terms of the Finnish discourse on landscape painting in Düsseldorf, it seems that too much emphasis has been placed on the academic syllabus of the *Kunstakademie* to date. Therefore, I have not discussed the training at the *Kunstakademie* as such, because none of the Finnish

artists under survey studied there directly. But, as suggested by Bettina Baumgärtel, I believe the actitivies outside the Academy played a more important role for them. From today's point of view, it is more important to take into account the change in the approach to landscape, which was introduced by the establishment of the *Landschaftliche Komponierverein* in 1827. Thanks to the activities of Johann Wilhelm Schirmer and Carl Friedrich Lessing in the field of open-air painting, the notion of naturalism gained the dimension it has been granted in this investigation. It was their example that encouraged younger artists to go out into nature in pursuit of different landscape phenomena. Further to the role of the *Kunstakademie*, it became evident that when Holmberg lived in Düsseldorf, it was the activities outside the Academy that were more determinant than the teaching at the Academy itself. In the case of women artists, this is actually more than obvious, since they were not allowed to study at the Academy at all. It was only in 1919 that the doors of the *Kunstakademie* were opened to women. With my investigation I also want to emphasise how the development of outdoor painting in Düsseldorf appears to have been dwarfed by the French *plein-airism*. Schirmer and Lessing's activities were not only taking place simultaneously with Corot's, but they also bear a certain resemblance to it. Even so, French outdoor painting has gained a lot of recognition, especially in Anglo-American art-historical discourse, whereas that of Düsseldorf has passed quite unnoticed outside German borders. Yet, it had a great impact on Finnish and Norwegian landscape painting.

In the great Nordic art exhibition in Stockholm 1850, the artworks of Norwegian artists, especially the landscapes of Hans Gude and August Cappelen, attracted wide publicity. Their approach was regarded not only as fresh and new, but also as representing Nordic characteristics.[786] The positive reviews of this exhibition reached Finland, turning the attention of Finnish artists towards Düsseldorf. Hans Gude's reputation and his impact on Finnish artists has been mentioned in several contexts, but it has never been analysed to discover what was so special about it. I believe that he promulgated Schirmer and Lessing's ideas on open-air painting and made Finnish artists realise the importance of it. Later in his life, Gude stated that he preferred the realism in Schirmer's artworks to his idealism, which gives some idea of Gude's own values.

Although the principal temporal scope of my study lies between the years 1853 and 1880, I realised that I had to go back in time to

786 Out of 310 artworks altogether, 274 were composed by Swedes, 22 by Danes and 14 by Norwegians. *Deutsches Kunstblatt* No. 29/1850 on Monday 22 July.

discover the reasons for certain changes in the artistic representations. Indeed, these changes often seem to coincide with the developments in the fields of meteorology, botany, geology, and geography respectively. Furthermore, it was necessary to include earlier developments of landscape painting in Dresden, even if to a limited extent, since a close interaction between artists and scientists, or naturalists, existed there at the beginning of the century, producing fruitful cooperation. In the field of the arts, it was Johan Christian Clausen Dahl and Carl Gustav Carus who played major roles in Dresden in the light of this investigation. Dahl acted as a role model for Norwegian artists, introducing a more realistic approach to landscape painting. In addition to this, it was his artworks which were to make Norwegian landscapes and mountains better known in Germany. In the case of Carus, he not only spread his own ideas with his writings, but also those of Humboldt, by advising young artists how to delineate a subject in order to capture the characteristics of it. To illustrate this, in a number of sketches and studies a simple outline of the subject renders its characteristics – be it a tree, a mountain or a cloud.

I believe the two artworks by Werner Holmberg, which depict Kyrö Rapids and were introduced at the beginning, visualise the change that had been initiated during the first half of the nineteenth century but that was still continuing – in spite of the fact that one of them is a painting in oil colour and the other a wash tint drawing. These two landscapes tell quite a different story about the same place. When Holmberg painted his first picture of the Kyrö Rapids in 1854, he started by using sketches and studies made by other artists, and the result was the mighty picture created in the Romantic spirit. The problem with this picture was that it lacked the artist's actual presence in the location, and therefore it obviously also lacked the originality of the landscape, which was a prerequisite in Düsseldorf. That is why Holmberg had to visit the place in person while in Finland in the summer of 1857 and, as a result, we can see quite a different view of the rapids, composed as a wash tint drawing. This picture not only demonstrated the idea of open-air painting in Düsseldorf, but also the notion of naturalism that Holmberg wrote about. On account of this, I would like to talk about naturalism, and more precisely about Düsseldorf naturalism, instead of detail realism. Furthermore, Holmberg's outdoor study of the Kyrö Rapids possesses qualities which bear similarities to the approach of the British landscape artists and phenomenalism, as described by Char-

lotte Klonk. In a recent art exhibition at the Estonian Art Museum, KUMU, in Tallinn, this kind of realistic approach in Düsseldorf art was referred to as 'idealistic naturalism'.[787] Perhaps this definition could suffice here, too, as it contains the remnants of idealism but introduces the realistic approach in the form of naturalism. To my mind, however, Düsseldorf naturalism, with its precision of depiction, contains features of scientific naturalism rather than of idealism.

At the initial stage of this study, the temporal context needed to be scrutinised in the light of the history of ideas, which produced the framework constituted by the natural sciences and the developments in their field. Nevertheless, the investigation did not need to be restricted only to the developments of the natural sciences, because there were also other factors which influenced the idea of landscape. After the Napoleonic wars, nationalism started to gain ground and nationalistic ideas swept through Europe. The influence of nationalism shows in the artworks, too, especially in the choice of motifs. Hence, art not only serves as a representation of an artist's ideas and experiences but also as a mirror of society, and in this format it reflects major trends and developments in society.[788] Also studying the material from the point of view of central and peripheral positioning would cast new light on the topic. Additionally, increasing tourism widened perspectives, and people started to travel to more distant places. This trend was closely allied with the expanding railway networks. In Finland, this is seen especially in artists' discovery of Lapland, which only took place on a grand scale at the beginning of the twentieth century when the first railway was built to Rovaniemi.[789] The new way of travelling by train not only shortened travelling time, but it had an impact on the perception of landscape, too. While sitting on the train, the landscapes outside went by quickly, blurring the view. All these topics above, however, are extensive enough and would require a new study of their own. Fundamentally, I believe that what happened in the relationship between art and science earlier in the nineteenth century shows in the development of the formalist tradition of German art history at the end of the century, especially in the discussion between the main principles of positivist doctrine and aesthetic introspection. As a consequence of these developments, it was necessary to make art history more 'scientific' as well.[790]

787 The Force of Nature. Realism and the Düsseldorf School of Painting (3 July – 8 November 2015).

788 Here I agree with Charlotte Klonk, who has stated that 'art is more than a reflection of scientific developments'. Klonk 1996, 6.

789 Within the scope of this study, it was only Magnus and Ferdinand von Wright who travelled as far as Tornio in Finnish Lapland. Tornio served as a port for Lapland, and it was quite easy to reach due to the river which runs through it, but to travel farther than that was arduous.

790 Many academic art historians believed that the positivist approach could not fully express the essence of artistic experience. Therefore, their work focused on giving descriptive empirical evidence and analytical observation which led to hypothetical theories and abstract laws. Frank & Adler 2012, 4–5.

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ABBREVIATIONS

ÅA/HA = Manuscripts at Åbo Akademi Library, Turku
FNG = Finnish National Gallery, Helsinki
GKM = Göteborg Konstmuseum; Gothenburg Art Museum
GSM = Gösta Serlachius Museum, Mänttä; Serlachius Foundation
KA = Archive Collections, Finnish National Gallery
KK, SKD = Kupferstich-Kabinett, Staatliche Kunstsammlungen, Dresden
MAF = Merita Art Foundation
NM = Nationalmuseum, Stockholm
NMO = Nasjonalmuseet, Oslo; The National Museum of Art, Architecture and Design
OMV = Ostrobothnia Museum, Vaasa
SKS, KIA = Letter archive at the Finnish Literary Association, Helsinki
SMKP = Stiftung Museum Kunstpalast, Düsseldorf

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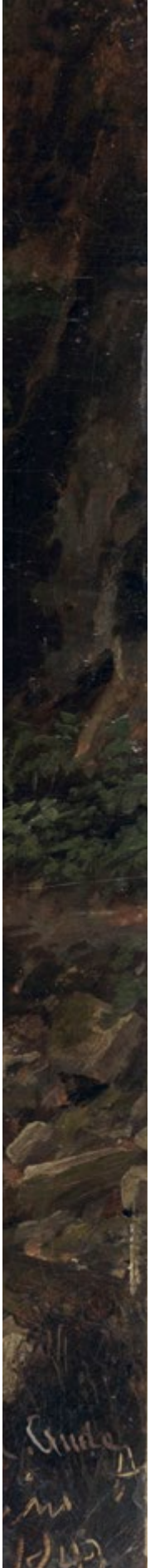

WERNER HOLMBERG
Autumn Landscape near Düsseldorf, 1857
watercolour
21.5 x 20.5 cm
Finnish National Gallery /
Ateneum Art Museum
Photo: Finnish National Gallery /
Tero Suvilammi

JOHANN WILHELM SCHIRMER
The Rabenstein in the Neander Valley near Düsseldorf, ca. 1827–28
wash pencil and colour drawing on paper
54.7 x 53.3 cm
Staatliche Kunsthalle, Karlsruhe,
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In Search of Scientific and Artistic Landscape: Düsseldorf Landscape Painting and Reflections of the Natural Sciences as Seen in the Artworks of Finnish, Norwegian and German Artists examines how the development of natural sciences influenced the idea of landscape in Düsseldorf in the nineteenth century. The natural sciences here comprise meteorology, geology, geography and botany. Several artists worked closely with scientists, illustrating their research – one them being the naturalist Alexander von Humboldt. His work as a naturalist connects landscape painting with the development of different fields of the natural sciences that began at the end of the eighteenth century and expanded all the way through the following century.

In these artists' practice, it was not only work in the studio that was important, but also the work undertaken outdoors in nature, increasing the value of sketches and studies. The artistic process of composing a landscape as such recalls the work of a naturalist, as described by Humboldt.

The main focus is on the artworks of the Finnish artists Werner Holmberg and Fanny Churberg, as well as those by Victoria Åberg, and Magnus and Ferdinand von Wright. Essential material for comparison is provided by studying works by the German artists Johann Wilhelm Schirmer and Carl Friedrich Lessing, and by the Norwegian artists Hans Gude and August Cappelen. In the case of Finnish landscape art, many artists were guided by the work and writings of Zacharias Topelius.

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